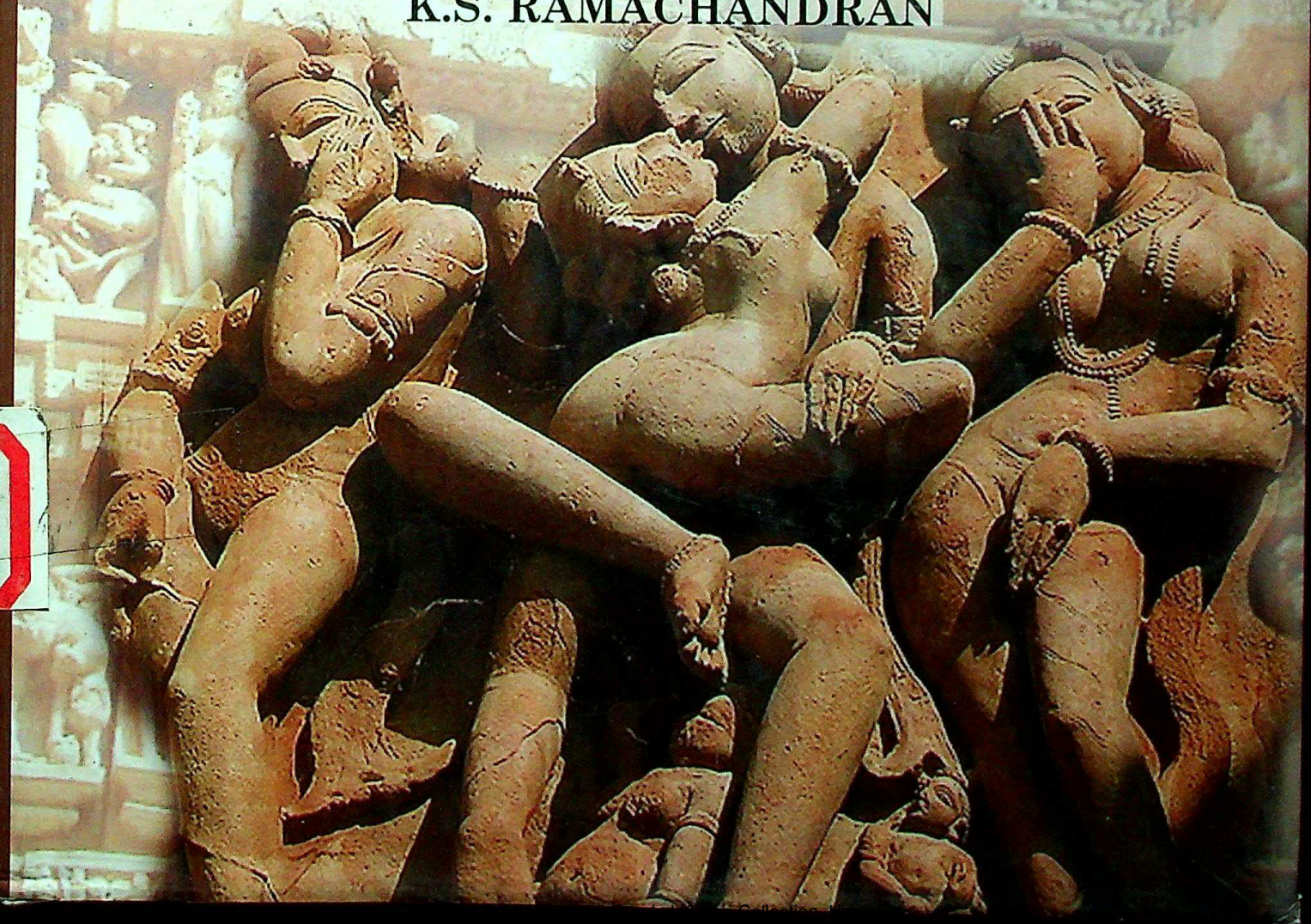
I S P Q S' History and Archaeology Series : 4

H.D. SANKALIA

ASPECTS OF INDIAN HISTORY AND ARCHAEOLOGY

General Editors
S.P. GUPTA
K.S. RAMACHANDRAN



ASPECTS OF INDIAN HISTORY AND ARCHAEOLOGY

H.D. San

H.D. Sankalia

Aspects of Indian History and Archaeology

Editors
S.P. Gupta
K.S. Ramachandran

published on behalf of
Indian Society for Prehistoric and Quaternary Studies

B.R. Publishing Corporation
Delhi-110052

Printed & Published by:

B.R. Publishing Corporation
425, Nimri Colony
Ashok Vihar, Phase-IV
Delhi-110052

E-Mail : brpc@vsnl.com

2012

ISBN 13: 9789350500347

Cataloging in Publication Data--DK
Courtesy: D.K. Agencies (P) Ltd. <docinfo@dkagencies.com>

Sankalia, Hasmukhlal Dhirajlal.
Aspects of Indian history and archaeology / H.D. Sankalia ; editors, S.P. Gupta, K.S. Ramachandran.
p. cm.
Reprint.
Includes bibliographical references.
ISBN 9789350500347

1. India--Antiquities. 2. India--History. I. Gupta, S. P. (Swarajya Prakash), 1931-2007. II. Ramachandran, K. S. III. Title.

DDC 934 23

CONTENTS

EDITORS' NOTE

Hasmukh Dhirajlal Sankalia, the doyen of Indian archaeology, is a versatile scholar. Born in 1908 in Bombay, he had his education in Bombay and took his doctorate from London. He has been associated with the Deccan College and Post-Graduate Research Institute, Pune, since 1939; first as a lecturer and then in the capacity of Professor of Proto-Indian and Ancient Indian History as also as its Director for some time, and now Emeritus Professor as well. So much so, the Institute has become part of his life and, in a sense, Sankalia and the Institute have become synonyms. He has won several gold medals for his academic achievements, written more than twenty-five books and two hundred articles covering a variety of subjects, viz. art, archaeology, numismatics, literature, etc. Besides, he has presided over several Congresses and Conferences and has delivered numerous lectures in the various Universities. He has been the Chairman of the Indian Archaeaological Society for the last ten years. He was one of the first scholars to be honoured with the coveted fellowship of Jawaharlal Nehru Memorial Fund. The Government of India recongnizing his services to the Nation in the field of art, archaeology and culture conferred upon him Padma Bhushan in the year 1974.

The present collection, comprising thirty-three papers, cover a wide range of subjects, viz. history, culture, ethnography and historical geography (**1,2,3,4,6 & 15**), temples (**5,7, & 8**) and their socio-economic background (**9**), epigraphy, numismatics and religion (**10,11, & 12**), iconography (**13 & 14**), archaeology, material culture and tradition (**18,20,-22,23,24,25,26,27,28,29,30 & 32**), museology (**33**) and literature (**31**). The selection shows his versatality and his ease in handling the subjects. His preface to this book embodying the purpose and methodology for further research would be an eye-opener for research scholars. Dr. Sankalia's frank and outspoken writings may not be palatable to some, but they are from the pen of a person who is sincere to his work and should carry conviction.

The editors are thankful to Prof. Sankalia for having permitted them to publish the collection of his articles on behalf of the Indian Society for Prehistoric and Quaternary Studies. They are also thankful to BR Publishing Corporation for undertaking its publication. They also owe a word of appreciation to Shri M.S. Mani for the excellent line-drawings and maps.

S. P. GUPTA
K. S. RAMACHANDRAN

REFERENCE TO PAPERS—CHAPTERWISE

1. *Journal of the Gujarat Research Society*, Vol. VII, 1946
2. *Ibid.*, VIII, 1946
3. *Ibid.*, XXII, 1960
4. *Annals of the Bhandarkar Oriental Research Institute*, Silver Jubilee Volume. 1942.
5. *Ibid.*, XXI, 1941
6. *Studies in the Historical and Cultural Geography and Ethnography of Gujarat*, Bombay
7. *Bulletin of the Deccan College Research Institute*, II, 1940-41
8. *Journal of The Indian Society of Oriental Art*, IX, 1941
9. *Journal of Indian History*, XLIV, 1966
10. *Prachya Pratibha*, III, 1975
11. *Journal of the Numismatic Society of India*, XVI, 1952
12. *Ibid.*, XV, 1953
13. *Bulletin of the Deccan College Research Institute*, Sukthankar Memorial Volume, 1943-44
14. *The Eastern Anthropologist*, 29, 1, 1976
15. *Bhavan's Journal*, XV, 1, 1968
16. *Education and Culture*, IV, 1967
17. *Seminar*, May, 1967
18. *Journal of the Asiatic Society Bombay* (New Series), 38, 1963
19. *Indologen—Tagung*, 1971
20. *Sunday Standard*
21. *Jaina Antiquity*
22. *Bulletin of the Museum and Picture Gallery*, Baroda, XX, 1968
23. *Journal of Indian History*, XII, 1963
24. *Bulletin of the Deccan College Research Institute*, K. N. Dikshit Memorial Volume, VIII
25. *Ibid.*, 1959-60
26. *Journal of the Anthoropological Society of Bombay*, 1950
27. *Journal of Indian History*, XLVIII, 1970
28. *Indica*, Indian Historical Research Institute, Silver jubilee Volume
29. Presidential Address, Anthropology and Archaeology Section, Indian Science Congress, 1970
30. Bhailabhai Patel Memorial Lecture, 1975
31. *Journal of the Oriental Institute*, Baroda, XV
32. *Bhavan's Jonrnal* XVI, 15, 1970
33. *Journal of Indian Museums*, XIII, 1957

ABBREVIATIONS

ABIA—Annual Bibliography of Indian Archaeology, Kern Institute, Leiden

ABORI—Annals of the Bhandarkar Oriental Institute, Pune

AIOCR—All India Oriental Conference, Reports

ARASM—Annual Report of the Archaeological Survey, Southern Circle, Madras

ASI (NIS)—Report of the Archaeological Survey of India (New Imperial Series)

ASIAR—Archaeological Survey of India, Annual Reports

ASWI—Reports of the Archaeological Survey of Western India

BDCRI—Bulletin of the Deccan College Research Institute, Pune

BMC—Rapson, Catalogue of Coins in the British Museum

Bom. Gaz.—Fleet, Bombay Gazetteer

BV—Bharatiya Vidya

CAI—Allen, Coins of Ancient India

CASR—Archaeological Survey Reports (Cunningham)

CHI—Cambridge History of India

CII—Corpus Inscriptionum Indicarum

Epi. Car.—Epigraphia Carnatica

Epi. Ind.—Epigraphia Indica

IAR—Indian Archaeology—A Review

IC—Indian Culture

IHQ—Indian Historical Quarterly

ILN—The Illustrated London News

Ind. Ant.—Indian Antiquary

INKK—Inscriptions of the Northern Karnataka

IPPA—Foote, Robert Bruce, Indian Prehistoric and protohistoric Antiquities—Notes on their Ages and Distribution.

JAOS—Journal of the American Oriental Society

JASB—Journal of the Asiatic Society, Bengal

JBBRAS—Journal of the Bombay Branch of the Royal Asiatic Society

JBORS—Journal of the Bihar and Orissa Research Society

JBU—Journal of Bombay University

JGRS—Journal of the Gujarat Research Society

JIH—Journal of Indian History

JISOA—Journal of the Indian Society of Oriental Art

JNSI—Journal of the Numismatic Society of India

JOIB—Journal of the Oriental Institute, Baroda

JPASB—Journal and Proceedings of the Asiatic Society of Bengal

JRIA—Journal of Royal Anthropological Institute, London.

JRAS—Journal of the Royal Asiatic Society, London

JUPHS—Journal of the U.P. Historical Research Society

MASI—Memoirs of the Archaelogical Survey of India

Nag. Prach. Patr.—Nagari Pracharani Patrika (in Hindi)

NIA—New Indian Antiquary

QBSM—Quarterly of the Bharati Itihas Samshodan Mandal

PSI—Inscriptions of the Pudukkottai State

SBE—Max Muller (Ed.), Sacred Books of the East

PREFACE

NEW TRENDS IN HISTORICAL AND ARCHAEOLOGICAL WRITINGS

The articles here republished, some after nearly forty years, will show that what is needed is a systematic search and study, whether it be temples, megalithic structures or place and personal names. During all these years, a number of books on temples and sculptures have been published, besides a few books on ancient Indian geography as well; still it may be said that these have been neither very systematic nor have touched the core of the subject. Take for instance, the temples or monuments of the Gurjara-Pratiharas. This dynasty ruled in Rajasthan, parts of Madhya Pradesh, Uttar Pradesh and wielded influence over Gujarat, Bihar and Bengal for some time. During their rule of nearly two hundred years (9th/10th cent.) they built various kind of monuments in their home province and the region under their direct rule.

Study of Temples : Political and Socio-economic Background

The question now is, how far these monuments—which we shall, in the absence of any other stylistic or regional name call "Gurjara-Pratihara" after the dynasty—show a departure from the past, such as the temples of the Guptas and Late Guptas and what are their new features ? What are these features due to ? Do they represent only a stylistic development or features which reflect either social, economic and political conditions of the times ? The period was not quite normal. A number of foreigners, particularly the Hunas on the political side and the Arab merchants on the socio-economic side had entered the Indian scene. Side by side, the various aspects of Hinduism were becoming more and more theistic because of the growth of *Bhakti*, *Yoga* and other ancillary cults or practices.

The study here outlined can be properly or best carried out, as I did for Gujarat and as Dr A.V. Naik did for the Deccan (Western Maharashtra), by first going through the records (inscriptions) of the Gurjara-Pratiharas and card-indexing the various items, followed by the study of monuments—mostly temples—which are known to be built by the Gurjara-Pratiharas themselves. After this study is done, and the student has mastered, or well-understood the typical features of the Gurjara-Pratihara temples he can embark upon a wider study viz. examining monuments situated in the Gurjara-Pratihara empire. This would indeed be a huge project, but can be carried out with facilities now available from the University Grants Commission, Indian Council of Historical Research and several Universities. What is needed is a band of devoted students of the subject. It is indeed immaterial whether they are teachers in Universities or only Ph. D. students. If however, the project mentioned above is considered to be a bit too large, smaller projects can be taken up. For example, how far do the early medieval temples, such as those of Khajuraho and the ones built by the Kalachuris in Madhya Pradesh reflect the growth of the institution of the *Devadasis* ?

Ethno-archaeological studies

After having gone through inscriptions of the Kalachuris and the Chandellas and studied the temples themselves, particularly the size of the *Natyamandapas* or the *Sabhamandapas*, one has to ransack the relevant literature and supplement it by socio-ethnographic studies. The student will have to find out whether there was an institution like the *devadasi* in northern India and if there was, how long ago was it in vogue ? Probably with the advent of the Muslim rule, this practice fell into disuse and hence it did not develop further as in south India, whereas the inscriptions of the Choals and those of the rulers of Vijayanagara and the Nayakas of Madurai show that there were literally hundreds of *devadasis* and entire villages were granted by these kings for their maintenance. Such socio-religious institutions must have had a far reaching effect upon the society, since the growth of the size of the temples were the cause as well as the consequence of this institution. Thus, this is an ethno-archaeological study which might be attempted by a student/teacher from any of the social sciences—such as history, archaeology or anthropology. Again what is necessary is a devoted approach and proper guidance.

Dr S.B. Deo and his pupil Dr G.B. Deglurkar, both of the Nagpur University have already done something substantial in this line by describing and illustrating the temples of Markandi and Salgaon respectively. And I was glad to find that Dr L.K. Tripathi had independently tackled temples at Baroli in Eastern Rajasthan on these methods.

Sculpture and Iconographic Texts

Another problem which should interest a student of Sanskrit, iconography or ancient Indian culture in general is to what extent the temples of the Gurjara-Pratiharas, Chandellas and the Kalachuris follow a particular iconographic text/texts ? Such a problem was tackled by Dr Kirit Mankodi (The Hindu Iconography of the South Deccan, Ph. D. thesis, 1966) and Dr R. Nagaswamy (Tantric cult in Tamilnadu, Ph. D. thesis, 1975) at the Deccan College. Thus one might go on and suggest a few more specific subjects for future studies in historical archaeology.

Inscriptions : Socio-religious aspects

The inscriptions of various dynasties are a mine of information. So far they have been exploited for throwing light on the political and other conditions in various regions of India. But these record the changing fashion/custom—as for examples in naming a child, according to the prevailing religious conditions. At the Deccan College, we have worked on a few dynasties of the north Gujarat, the Deccan, Madhya Pradesh, Rajasthan and parts of Uttar Pradesh. But still much more remains besides the whole of the South. Of course, the latter can be done by scholars who know the various south Indian languages.

Historical Geography

Equally interesting and far more important is the problem of historical geography

which can be reconstructed, as I have done for Gujarat, and Dr (Mrs) Mulay and Dr (Mrs) Shobhana Gokhale for the Deccan and Madhya Pradesh and others for Rajasthan and parts of Uttar Pradesh.

As I have said elsewhere, when a scholar who has written number of works on this subject saw the large maps of Gujarat and Maharashtra-Karnataka in our Institute, he was indeed apologetic and said that he could not attempt anything so solid and substantial as the work he saw before him, because he did not have such good students. If the work which has been done on the Historical Geography of India can be done elsewhere as carefully as it is done here, then within ten years we can produce a solid work on the ancient geography of India. In fact, similar advice was given to a scholar from Kurukshetra University when he was thinking of bringing out a second edition of his book on some aspects of ancient Indian geography, which is of a very general nature only.

Numismatics

In numismatics we have all along depended upon the chance discovery of coins and coin hoards. If luckily, some of these coins, as those of Ramagupta or those recently found at Nasik of Satakarni Queen Naganika (Chinmulgund, P.J., *JNSI*, XXXVIII, 1976, p. 11) and Mahakshatrapa Rudrasimha I, Saka 116, Isvaradatta of Saka 154, both discovered by Dr (Mrs.) Gokhale, would further our knowledge of the Guptas, Satavahanas and their successors, because they are dated or give some information. However, what will truly advance our knowledge of these and other dynasties is the discovery of coins in stratified deposits. This, a numismatist alone cannot hope to accomplish. He has to depend upon the archaeologist So once again we have to stress the need of planned excavations, particularly of the Gupta and Satavahana sites. Our experience at Maheshwar has conclusively shown where we can place the earliest occurrence of Punch-marked coins whether they be silver or copper.

Archaeology : Study of Megaliths

All these, however, are studies which do not require any excavation. I would now turn to some larger problems which have been engaging my attention for the last several years. The first is the problem of megaliths. The megaliths we discovered near Pune in 1939 now seem to be due to be a trace of megalithism which had swept over Maharashtra, both east and west, in about 7th/8th century B.C., as our work at Pimpalsuti, near Inamgaon, District Pune, shows. Whereas Dr Deo's excavations at Mahurjhari and Takalghat definitely prove that about this time, the then rulers (and the ruled or the rulers alone ?) had adopted this practice of burying the dead with iron weapons and horse-bit with peculiar and distinctive pottery. The problem is, was this practice confined to a small group of the population ? If so, can we identify this group ? Was it formed by the ruler or a class of warriors ? One thing is obvious that no ordinary man can indulge in this after death-luxury. He or she must belong to a group/class which could afford such a construction, made before the actual death took

place and then provide the dead with the equipment mentioned above. The megaliths in Andhra, Karnataka Kerala and Tamil Nadu are still more elaborate.

Now, all these problems cannot be solved, or even understood unless we carry out studies as attempted by the late V.D. Krishnaswami and more recently by William A. Noble. An elaborate account of this is published in *Anthropos*, 1976, pp. 91-125. Noble, after a prolonged study, suggests that stone-circles might be related to herders and dolmens to gatherers/hunters or later farmers. He further thinks that stone-circle builders preceded the Todas and the descendents of stone-circle builders may now form a Toda moiety. Of the former remaining traditional groups, the farming Kurumbas have probably erected most of the dolmens. However, it appears that these are merely survival of the ancestral or earlier megalithic cult and not true megaliths in the original sense as can be seen from the sculptural representations on many of these monuments.

Hence one of the main problems in connection with the original megaliths is the understanding of the socio-economic and political background. This cannot be understood merely by typing or classifying the monuments, though this is an essential first step. What is of utmost importance is to discover the habitation site/sites of these Western Maharashtra and Vidarbha megaliths, as well as those of the South. If a diligent search does not reveal any such site, then the logical conclusion may be, as drawn by Noble, that some or all of them belonged to hunter/gatherers. But this is most unlikely, for the varied nature of pots and pans, and the types of weapons found from Vidarabha in the North to Adichchhanallur in the South belie the postulation. Again, if we are lucky enough to discover such a site/sites, then a few of these will have to be excavated horizontally. This requires funds and organization. While the expertise is not lacking, what is needed is a well-thought out plan in which two or three Institutions will join and excavate it efficiently. It is a "War" effort of a different kind. Will our educational Institutions and the State Departments of Archaeology face this challenge ? Because, unless such or similar course of action is adopted, our knowledge of the megaliths of south India, which was dramatically advanced by the late Sir Mortimer Wheeler, will remain where he left it twenty-five years ago. During this quarter century we have done little, except for the careful plotting by Dr A. Sundara of some of the Karnataka megaliths (Sundara, Megaliths in North Karnataka, 1969, Ph. D. thesis, Poona University) and the excavation of a few Vidarbha megaliths by Shri B.K. Thapar and Dr S.B. Deo. (*Indian Archaeology 1961-62-A Review*, pp 32-34, and *Excavations at Takalghat* and *Khapa*, Nagpur, 1970 and *Maharjhari Exacavation* 1970-72.).

Again these megaliths have to be viewed in the larger perspective, which in fact would project the problem of the introduction of the Iron Age in India. Was this metallurgical knowledge a gradual diffusion through men and ideas from Iran and further afield or was it an independent development, as recently stressed by Dilip Chakrabarti (*Antiquity*, 4, 1976, Pp 114-24). The question cannot be solved by plotting a few ^{14}C dates. As it is, the Vidarbha megaliths, as well as those of the extreme South

do show resemblance in their potterycover decoration and weapons and horse-bits with similar objects found in Iran, and as far away as Central Europe (Mc Cardy, *Human Origins*, II). Though the identity between far flung decorative motifs is not exact, still the source of the inspiration is undoubted. Something parallel is happening today. All these years we were importing kerosene and petrol from Western Asia, now we have began to produce from our own wells. But how far this development be regarded as cent per cent indigenous ?

However, the problem might be put in a proper perspective if we do not stop at merely plotting the few ^{14}C dates from these Iron Age sites, but go further and relate the Iron tools/weapons with the known iron deposits from each region. Thus those from Vidarbha with Central Eastern Indian deposits, those from Karnataka with the one such deposit in that/nearby region. With modern development in technology—particulary spectrography this is not a very difficult task. Unfortunately scholars who initiated this kind of inquiry and who have all the resources and know how have not cared to follow up their own lead. Such a scientific approach coupled with ^{14}C samples from well stratified sites alone and *not from overlapping layers* will help understand the problem of diffusion or otherwise of iron technology.

TOWN PLANNING AND SETTLEMENT PATTERN

Still more or equally important is the knowledge we need about town planning, settlement pattern—in brief the life of the people during the Maurya, Kushana, Gupta and later times. Unfortunately, except for Taxila no other city-site has been partially excavated even. We have only tinkered with chronology, and fortification, whether it be Sisupalgarh, Hastinapura or Kausambi, Kolhapur, Kaundinyapura, Nasik, and Ter. Hence we have to rest satisfied with the fanciful descriptions, for example of Dwarka and Ayodhya in the Puranas and epics or play with toys from Ahichchhatra and Ter. Models, theories and hypotheses can be forumlated only if we follow the more exacting methods and techniques, advocated by the champions of New Archaeology : gather contextual data, and test the models so made against our ethnographic or other evidence. Just now we have no evidence at all about status differentiation in ancient India *based on strictly archaeological data* nor have we any evidence about beef eating. However, my survey based on a review of inscriptional and other evidence definitely shows that beef was eaten even in Buddhist *viharas* and elsewhere, whereas mere granting of land or even a village to an artisan did not elevate him to a position of a Brahmana or a Kshatriya. As I have pointed out elsewhere, it is only now, after the Second World War, that a few architects and contractors have acquired a place in high society, because of the immense wealth gathered by them. Was it also like this in ancient India ? We might, if we exacavated a site like Kausambi ; not the whole of it, but particular sectors after making a few models based on literary evidence and check this knowledge with that gathered after a careful work, in which, a day to day comparison of notes by

each member of the excavation party is a "must". Let me hope that this and others will not remain a pious wish.

Regarding beef eating the question can be easily solved, if bones collected from the excavation of historical sites are studied by some palaeontologists. This knowledge can become significant, if the bones are collected house-wise, and identified likewise, immediately as they are found. He might then form an idea about the residents who ate beef, and those who did not. In what other respects do they differ from each other ? This question can be answered only if a strict contextual record is kept of each excavated room in a house. Models or hypotheses are thus to be framed and tested at every step. It is this exacting work and not armchair models, which alone will yield some worthwile knowledge than simple collection and classification of pots and pans and other artifacts. Refinements in our methods and techniques of data collection has to go hand in hand with this on the spot study or "feedback" to use an Americanism.

Pune,

15th August, 1977

H. D. SANKALIA

1

STUDIES IN HISTORICAL GEOGRAPHY AND CULTURAL ETHNOGRAPHY OF GUJARAT

[In November 1944 I had delivered a course of five lectures on "The Historical Geography and Cultural Ethnography" or "Peoples and Places from inscriptions of Gujarat *c.* 300 B. C.—1300 A. D.", in the Thakkar Vassonji Madhavji Lecture Series of the University of Bombay. In the last lecture, I had, on the strength of the evidence discussed in earlier lectures, dealt with :

(i) the Aryanization of Gujarat ;
(ii) the extent of Aryanization ;
(iii) the linguistic changes undergone by the inscriptional place-names and their modern equivalents ;
(iv) the main features of the administrative units of Gujarat and the rest of India ;
(v) the main features of place-names of Gujarat and the rest of India, particularly the Deccan, Karnataka, and Bengal ;
(vi) personal names and general conclusions therefrom ; and
(vii) suggestions as to future work.

From the above items, I have omitted item no. iii and summarised *very briefly* the results of my investigations on item nos. iv, v and vi, as these were too technical for the purpose of a general article, which is being published here with the permisson of the University.]

Aryanization of Gujarat

The place and personal names which occur in the inscriptions of Gujarat—from the earliest historical times till the 10th century—are mostly in Sanskrit, and a few in Prakrit. From the 10th century onwards we begin to get a larger percentage of Prakrit personal names, but still a number of names, both place and personal, are in Sanskrit. We may say that the main or dominant feature running through all the names is Sanskrit. Can we, therefore, infer as has been done by some for other provinces,[1] that Gujarat was Aryanized or Sanskritized from a very early period ?

We cannot form a very definite conclusion, but before arriving at one we should take into consideration :

(1) the traditional view about Aryan culture in India,
(2) the view of the linguisticians as represented by Grierson,[2]

1. Majumdar, R. C. (Ed)., *History of Bengal*, I, p. 293.
2. Grierrson *Linguistic Survey of India*, Vol. I, i, p. 119.

(3) certain recent hypotheses of Mr. Munshi,[1]

(4) other extant ancient literature from Gujarat,

(5) the language of Gujarat inscriptions, and

(6) the true nature of personal and place names occurring in inscriptions.

The traditional or orthodox or Puranic view is that India, particularly Āryāvarta, the Punjab and the Madhyadeśa, that is the Gangā-Yamuna *doab*, was the original home of the Aryans. They lived there from time immemorial. According to this view, therefore, it should not be at all surprising to find place and personal names in Sanskrit.

In direct contrast to the above is the view of Western Orientalists and some Indians also, that the Aryans entered India in several waves of invasion[2] or immigration and gradually spread over the country. In support of this Grierson (who published several volumes on modern Indian languages) said that these languages fell into two distinct sub-groups :

(1) The inner sub-group formed by the western Hindi, Panjabi, Gujarati, Bhill, Khāndeśī, and Rajasthanī ;

(2) The outer sub-group comprised Lāhndā, Sindhi, Marathi, Oriya, Bihari, Bengali, and Assamese. Eastern Hindi belongs to the Mediate sub-branch.

Gujarati, though regionally within the outer sub-group, was the only language which belonged to the inner group. But since it showed some points of affinity with the languages of outer sub-group, such as Sindhi, it was probable that the original language of Gujarat was developed by the Aryans of the outer branch, but subsequently considerably changed by the later domination by the Aryans of the inner group.

The Aryans of the outer group might have entered Gujarat through Sind; those of the inner group from the north-east. For example, the Puranic Yadavas who colonised Dwarka from Mathura, and the later Śakas, Gurjjaras and others who came chiefly from the north and north-east, and the earlier Aryans who entered India from the north-western passes or through Kashmir.

Mr. Munshi not agreeing with this theory of Aryan invasion, however, holds that there were two groups of Aryans. One of them had remained for long in the Sapta Sindhu. Before the members of this group, such as the Paraśurama Bhārgavas who later descended southwards; the other Aryan group represented by the Haihayas had already settled in the Narmada valley. This is an ingenious compromise between the orthodox

1. See Munshi, *The Early Aryans of Gujarāta*.
2. The theory of second or many invasions proposed by Hoernle and Risley—and in the second wave or invasion the Aryans had no or few woman with them, and therefore had married aboriginal women resulting in the modification of their original type is not supported by later ethnologists like Crooke and Ghurye, who have pointed out that there is no great physical change visible in the population from the Punjab to Hindustan and secondly the theory is entirely contradictory to the literary records of the Brahmins. cf. Ghurye, *Caste and Race in India*, p. 108.

view and that of Grierson, but leaves the impression that in some distant past, when it is not specified, Gujarat was non-Aryan, but came to be later Aryanized by stages.

Two place-names help us to fix the limits of the Aryan expansion in Gujarat. These are Arbuda and Bhillamāla. In inscriptions of Gujarat, Arbuda occurs for the first time in two inscriptions of Bhima II. In one of these it is called *Arbudāchala Mahātīrtha*. In one of the inscriptions from Mount Abu itself, the village Ābuya, ostensibly derived from Arbuda, is mentioned.

Not only does Arbuda occur in these inscriptions from Gujarat and those of Rajasthan and others of the early medieval dynasties of northern India, in several Puranas, and the *Mahābhārata*, but it also occurs in some of the oldest hymns of the Rigveda as pointed out by Dr. Sten Konow.[1] There it is described as the strong-hold of Śambara and other *dāsas* or *dasyus*, who descending the hill-top carried away the cows of and otherwise harassed the Aryans. Indra is, therefore, praised for treading down the great Arbuda; in short, for conquering Arbuda and its lord Śambara.

The later tradition about Arbuda seems to be based on the Vedic version, viz. that the mountain was placed in its present position by Indra, who was considered to have cut it off from some big mountain range, perhaps the Himalayas. The current tradition is that Mount Abu was formerly a level plain stretching to the Aravallis. At one spot there was a chasm of unfathomable depth. This was filled up by Nandivardhana, a son of Himachala. Since he could not walk, he was carried on the back of a mighty snake Arbuda. This new mountain, called after the snake, was steadied by the foot of Śiva.

Evidently some great geological phenomena are hinted by these traditions. Whatever may be the truth, the meanings of Arbuda, swelling, tremor, polypus, foetus, would well suit the traditional explanations.

Konow examining the ethnological and linguistic data shows further that Śambara and other *dāsas* or *dasyus* might have belonged to the aboriginal tribes, Nishādas, such as Śabaras, Bhils and others; Śambara himself being of the Kolarian or what is otherwise known as Muṇḍā, as Austro-Asiatic tribe. For even now these tribes, pushed off from the north inhabit a large part of Central India, Chota Nagpur, Orissa, West Bengal and the erstwhile Madras Presidency, and speak Muṇḍā dialects, which belong to the Austric family of languages.[2]

1. Kristiania, *Aryan Gods of the Mitani people*, p. 25ff.
2. These were recognised by P. W. Schimdt who in 1906 proved the existence of a great family of languages, spread over a very wide area. This family is supposed to be different from the Dravidian languages of south India and is divided into two sub-families : (1) Austronesian, and (2) Austro-Asiatic. Tne former included the languages of Madagascar, Indonesia, and the Pacific Islands, the latter is scattered over Nearer and Further India. In India it must have been once spoken over a much greater area than at present. Now the most southern forms of Muṇḍā speech are those spoken by the Savaras and Gadabas of north-east Madras, then in Central India, in Mewar the dialect is called Nahāli-Kūrkū. For details see Grierson, *op. cit.*, p. 34.

That Bhils and Kirātas once lived in Rajasthan and its neighbourhood, particularly its hilly tracts is shown by instances from later Rajput history, but particularly by the names Bhillamāla, Kirātakūpa, and Muṇḍasthala. The first name occurs in the recently discovered Saindhava plates from Kathiawad. Though it is identified with the more well-known word Bhinnamāla, a tract in Jodhpur State, it, in and perhaps before the 9th century, was known as Bhillamāla and not as Bhinnamāla. The ending *māla* as the word Bhilla is non-Sanskritic. The former is supposed to be a Dravidian word, derived from *māl*, meaning upland, plateau and even now used in Gujarati for the upper storey or floor. Thus both linguistically and culturally the word is non-Aryan indicating that in the distant past the country was inhabited by non-Aryan, very likely Austro-Asiatic, tribes. This period would go back to the early Rigvedic times.

If these interpretations of Arbuda and Bhillamāla find further corroboration, then it would appear that Mt. Abu for some period formed the southernmost land-frontier of the Aryans, advancing into India from the north. And further that the present Gujarat was not colonized by Aryans until some time later, unless we accept the theory that there was an invasion through Sind or directly from the sea, which occupied the coastal belt, and formed what is called the "outer band of Aryans".

Save this, no references, even disparaging, are found to places in what is now called Gujarat and Kathiawad in Vedic literature. We cannot say whether Gujarat was or was not outside the pale of Āryāvarta as Bengal and Magadha were. By or during the Bhārata war, however, Dwarka and Prabhas on the coast, and Mount Raivataka a little in the interior of the present Kathiawad peninsula acquire great prominence; the former owing to the colonization, according to Puranic accounts, by the Yadavas from Mathura.

The other important place, Puranically, associated with the Aryans is Bhṛgu-kachcha on the mouth of the Narmada. Here according to the *Bhāgavata Purāna*, the *Devāsura* battle was fought at the end of the *Tretā Yuga*. This Bhṛgukachcha is a later Sanskritization of the Austro-Asiatic Bharukachcha. Originally, at least from the 1st century to the 8th century the place was called Bharukachcha as the inscriptions of the Kshaharātas, Kshatrapas, Gurjjara, Kalachuris, Maitrakas and Rashtrakutas testify. The word *Bharu* itself, according to Pryzylusky,[1] as kindly brought to my notice by Dr. Katre, has Austro-Asiatic features. Buddhistic tradition recorded in the 5th and 6th century *Divyāvadāna*[2] says that Bhirukachcha was founded by on Bhiruka, after the ruin of the city of Raunika. Again the *Mahābhārata* informs us that the śudras had established this place. Thus the Puranic allusion might be referring to the battle between the Aryans and the aboriginal population, chiefly non-Aryan and Austro-Asiatic in origin. It is a pity that we cannot fix even the probable period of these events and thus say positively when Gujarat was Aryanized.

1. "Emprunts Anaryens en Indo-Aryen," *Bulletin de la societe de Linguistique*, Vol. 29 (1929), p. 197.
2. Agrawala, V.S , *JUPHS.*, 1943.

Under these circumstances, when the earliest literature in Sanskrit was produced in Gujarat we cannot say. From the extant specimens it would appear that *Bhaṭṭikāvya* is the earliest. But this poem attributed to Bhatti and supposed to be produced at Valabhī as well as the works produced at Bhinnamāla, such as the *Harivaṁśa Purāna* by Jinasena written in A.D. 783, cannot go beyond the 7th century. Most of the later literature is in Prakrit, and Apbhramsa, and some only in Sanskrit.

We have thus to fall back upon inscriptions. Among these, excepting the Aśokan edicts at Girnar, and 200-300 years later the short memorial inscriptions from Kutch and 2 to 3 later Kshatrapa records, all other inscriptions beginning with the famous Rudradaman inscription are in Sanskrit. What does this signify? It signifies that already in the second century A.D. fine, chaste, classical Sanskrit had become a court language in Gujarat, and remained so for wellnigh a 1000 years and more. If any part of India is to be considered Aryanized earliest, *on the strength of epigraphic evidence alone*, it would be Gujarat, or more strictly Surāshtra. For the Rudradaman inscription is the earliest long Sanskrit inscription in India. Whether this early Sanskritization or Aryanization was due to colonization of the coastal strip by the hypothetical outer and earlier band of Aryans of Grierson, I am unable to say. If further evidence for this hypothesis is required, it may be sought in the Brahmana colonies at Prabhās, Girinagara and Damana, to which Ushavadata made gifts of cows, etc., and later at Bharukachcha, Jambusara, Govaṭṭana, Badarasiddhi, Udumbaragahvara, etc., all the places on or almost on the coast of Gujarat.

What was the extent of the Aryanization? Did all people, the laity and the intelligentsia alike speak or understand Sanskrit? Though there is no satisfactory evidence on this point, it would appear that people, particularly the agriculturists and others, perhaps, did follow Sanskrit, though their language or the language of the common people must have been one of the dialects of Prakrit which according to Grierson had developed, along with the classical Sanskrit, from the earliest Aryan dialects, "the house language", preserved in Rigvedic hymns. If these latter are called Primary Prakrits, the language of Aśokan edicts and those referred to by Patañjali may be called Secondary Prakrits;[1] for a large number of place-names are in pure Sanskrit, whereas the rest are Sanskritized. I have shown elsewhere how some of the names of Iranians and Sakas were Sanskritized. Granting that people could follow Sanskrit, we can see two processes how the then existing names were Sanskritized.

In some cases a purely, perhaps totally new Sanskrit name was given to a place after some prominent landmark or event; just as we have now replaced Bhāmburdā, a suburb of Poona, by Shivaji Nagar, and the old Girgam Back Road by Vithalbhai Patel Road. In other cases the existing names were Sanskritized. Witness how Andheri has been re-named Āndhragiri.

That such small but dominant culture stamps itself upon a large, ill-organized

1. Grireson, *op. cit.*, p. 121.

culture has been successfully demonstrated in the last 1000 years of India's history. In the end, of course, a resultant culture emerges, and that is what seems to have happened in Gujarat and elsewhere in India. For by the 12th—13th century even the language of the inscriptions becomes more and more Prakrit. It is possible that this was also due to other factors. Besides the weakening of the original Sanskrit-culture, the increasing admixture of semi-barbaric people pouring into Gujarat from the north and north-west and west as invaders, traders and so forth, and the appearance of new powerful forces under the Arabs, Afghans and Turks must have been responsible for this change. Had not Mahmud of Ghazna and Ghori upset the political equilibrium, Sanskrit might have remained a court language for some centuries more in Northern India. For, as late as the 15th century when Muslim kings patronized Hindu poets, inscriptions, beautiful *Praśastis*, were composed in Sanskrit as the recently published *Praśasti* of Mahmud Begaḍā testifies.

In short, inscriptions show the prevalence of Sanskrit as a court medium for conveying grants of villages to donees. Since in majority of cases the place-names are in Sanskrit or Sanskritized we cannot form a true idea of the language of the common people, and say how they called a particular place.

But a comparison of these inscriptional place-names, with their modern equivalents would show what linguistic changes have occurred in these names, and what relation they have to the formation or structure of Gujarati. In a few cases we might be able to detect the original pre-Sanskrit names.[1]

RECONSTRUCTION OF THE SARASVATA MANDALA :

Identification of the place-names mentioned in Chalukya (Solanki) inscriptions, has enabled me to reconstruct the tarritorial or administrative units in Northern Gujarat. To summarize the results :

It would appear that geographically the Sarasvata maṇḍala, "the home province of the Chalukyas", included the land between the north-east to south-west flowing Banas and the north to south-west flowing Sabarmati. Politically it comprised the Mahesana *Prant* (minus the Degham Taluka) of the erstwhile Baroda State, parts of erstwhile Palanpur and Radhanpur States and the Viramgam Taluka.

At present, the Mahesana *Prant* is divided into, beginning from the north : (1) Sidhpur, (2) Kheralu, (3) Vijapur, (4) Visnagar, (5) Mahesana, (6) Kadi, (7) Kalol, (8) Chansma, (9) Patan, (10) Harij, and (11) Dehagam *mahals*. The last, Dehgam is really an appendage, not forming a homogeneous whole with the other trans-Sabarmati group of *Mahals*.

Reconstruction of the *pathakas*, smaller units, within the Sarasvata maṇḍala, showed that :—

1. Dhānada *Pathaka* = Southern part of Palanpur State.

1. Details are omitted.

2. Daṇḍāhi *Pathaka* = Parts of Sidhpur, Visnagar and Mahesana, and perhaps Kheralu *mahals*.
3. Vishsaya *Pathaka* = Parts of Mahesana and Kadi *mahals*.
4. Chālisā *Pathaka* = Parts of Kadi and Kalol *mahals*.
5. Varddhi *Pathaka* = Viramgam taluka and parts of Chansma *mahal* and perhaps of Harij.
6. Gāmbhutā *Pathaka* = Parts of Chansma, Patan and Sidhpur *mahals*.
7. Vālauya *Pathaka* = Parts of Harij, Patan and Sidhpur *mahals*.

We shall have at least one more *pathaka* when details of place-names in the Vijapur and Kherālu *mahals* come forth.

The correspondence between the size of the largest territorial unit and its sub-divisions into *mahals*, in Northern Gujarat, of the Gaekwads of Baroda and the Chalukya of Anahilapāṭaka is pretty close. If the former have inherited the territory of the latter, have they also unconsciously inherited their administrative system? No less than five centuries separate the two rulers. So direct borrowing is to be definitely ruled out. But tradition, as modified by countries of Muslim rule and administrative experiments, might have guided the framers of the Baroda administrative system.

In the time of the Sultans of Gujarat the province of Gujarat consisted of 25 *sarkars*. Akbar redistributed them into 16 *sarkars*. Of these Pattana *sarkar* had 17 sub-divisions or *parganas*. We have actually no idea how the Gujarat Sultans had divided their province of Gujarat. But since Akbar followed the existing system, only regrouping the territory, it seems that he recognized the necessity of dividing the entire territory into sub-units.

But we have seen that this territory, at least from the 11th century, was divided into no less than 8 sub-divisions for administrative and perhaps fiscal purposes. Hence the Sultans could be said to follow the tradition current before them. If they had more sub-divisions it was because they were foreigners and for better control preferred smaller sub-divisions. Akbar borrowed from them when he conquered Gujarat and handed it down to the Marathas and the English.

Chalukyan Government :

Reconstruction of the Chalukya empire and one of its large units, the Sarasvata-*maṇḍala* shows the method of Chalukyan government. For better government the empire had to be divided into provinces and the provinces into sub-divisions. A comparison between the number and size of Chalukyan provinces and sub-divisions and those of the British, Gaekwad and Mughal provinces and sub-divisions has shown that the Chalukyan divisions were neither too small nor too large, considering their times when transport was much slower than today. In fact our comparison has shown a close correspondence in size between the size of the Gaekwadi *mahals* and the Chalukyan *pathakas*, and the size of the British districts and Chalukyan *maṇḍalas*.

Not only in the division of their empire, but also in the actual government of its various parts the Chalukyas exhibited a high administrative insight.

With the king was a minister called *Mahāmātya*, *Sachiva* or *Mantrī*. The names of several of these we know from Chalukyan records. They were selected irrespective of their caste or creed. Thus a Brahmana, Kshatriya or a Vaiśya whether he be Hindu or Jaina could hold the appointment, though at times when the king was a bigot, partiality to a particular creed resulted, and proved ability was set aside.

The Governor of a *maṇḍala* was usually called a *Maṇḍaleśvara* or *Mahāmaṇḍaleśvara*. In normal times a civilian was selected for this post. But when the province was newly conquered or lay on the frontier which must have been turbulent and its possession precarious a *Daṇḍādhipati*—literally a commander of the forces—was appointed to such provinces. Thus under Bhima I, Vimala, a *Daṇḍādhipati* was in charge of Arbuda (Mt. Abu) region, and during the reign of Jayasimha, Vapanadeva held the governorship of Dadhipadra *maṇḍala*.

What is remarkable is the existence of practices one thousand years ago exactly recalling modern practices. As we all know the British used to appoint an army chief to what are known as non-Regulation provinces. The North West Frontier Province has only recently got a semi-democratic constitution, and India herself, due to exigencies of time, put under an ex-Commander-in-Chief. Similar needs give birth to similar results.

Each *vishaya* or *pathaka* was placed under a separate chief who was directly responsible to its immediate superior. We are thus told that in the reign of Visaladeva, the chief of Varddhi *Pathaka*, viz. Mahāmaṇḍaleśvara Ranaka Samantasimha was subordinate to Amātya Nāgaḍa, whereas the chief of Vamanasthali, Mahattara Sobhanadeva, was respossible in the first instance to Somaraja, the *Mahāmaṇḍaleśvara* of Surāshtra.

What was the relation between purely geographical boundaries, such as rivers, hills, forests and territorial units ? Gujarat being purely an alluvial country, there are very few hills, forest-regions which would either bar territorial expansion or which could be regarded as effective land-frontiers. Consequently we do not come across a unit named after a hill or forest. But there are a number of small and big rivers in both Northern and Central Gujarat. The *doabs* formed by these river made a territorial unit. Some of these are expressly mentioned, e.g., the *Antarmaṇḍali*, i.e. the Purna-Mindhola *doab*, *Antar-Narmada*, probably the Tāpi (Tapti)—Narmada *doab*. Besides the larger rivers of Central and Southern Gujarat, it appears that the smaller rivers in Northern Gujarat, the Khāri, the Rupen and the Pushmamati, as the discussion of the size of the *pathakas* in the Sarasvata-*maṇḍala* shows, must have been used for fixing the size of the *pathakas*, whereas the Banas and Sabarmatī formed the western and eastern frontiers of the territory on either side of the Sarasvati, and hence was named after the river as Sarasvata-*maṇḍala*. Another such unit was the Narmadātaṭa-*maṇḍala*.

Distribution of Population

One small but important point also comes out from the identification of the place names in Chalukya Gujarat. This is the distribution of population. We cannot have an idea of the number of people then inhabiting the province, for no census records, if there were any, have come down to us. But plotting the various villages on a map, together with the small and big roads, indicates that the villages were spread over Gujarat exactly in the same position as they are now. Very few new villages seem to have sprung up between the old villages. Rather we find some deserted sites of old villages. This might have been due to migration to urban areas. Any way our inquiry shows that during the Chalukyan times Northern Gujarat was populated in an identical manner as today, which seems to be neither too thick as in Central Gujarat or too sparse as in Kutch.

Rainfall in Chalukyan Times

From the spread and distribution of the villages and population we may reasonably infer the climate, particularly rainfall, during the Chalukyan times. If the land supported as many villages as today, the quantity of rain (and the wells) which irrigated it could not have been, at least, much less than at present, but probably slightly more. A consideration of the weather reports of the last 50 years seems to favour the view that rainfall has not decreased in Gujarat, though popular view is that Northern Gujarat is slowly being desiccated. The evidence of historical geography here pointed out, may be valued for what it is worth.

Ancient and Modern Place-names

A study of inscriptional place-names has shown that the following suffixes or endings were current.

-padra, vadra, -palli, -pallikā, -vallikā, -sthali, -sthāna, -draha, -hrada, -sara, -pāṭaka, -vāṭaka, -vāṭikā, -ijya or *-ijja, -vasana, -vasahikā, -vāḍā, -pura, -puri, -nagara, -pattana, -durga, -siddhi, and -sāḍhi.*

The earliest occurrence of the ending *padra* in Kathiawad is in an inscription of the 2nd century A.D. Certain endings like *vasana, vāḍā*, etc. are to be found in Chalukya inscriptions and confined principally to place-names in Northern Gujarat.

Comparison with the modern place-names endings from the Northern, Central, and Southern Gujarat, indicates that the place-names in Northern Gujarat have much greater affinity, and in much larger proportion, with place-names from Chalukya inscriptions. This is particularly true of the present place-name pattern in the Mahesana *Prant*. As we go southwads Central and Southern Gujarat, the pattern changes, the change becoming self-evident in the Navsari *Prant*. Even in these parts over 50 per cent of the place-name endings can be traced back to antiquity. The differences are due to the varying physiography in the three parts of Gujarat, as well as to the different political and cultural influences. If, for instance, Southern Gujarat has many place-names indicative of its varied drainage system and its hilly and forest areas, certain

name-endings can be accounted for, by its closer physical and cultural contact with the Konkan and Maharashtra.

Consideration of the inscriptional place-names proper, apart from their endings, would indicate that there are a few names which seem to be after : (A) names of gods (Indra, Varuṇa, Vishnu, Śiva, Sūrya. Chandra); (B) names of men and women (General and Personal); (C) names of tribes or people; (D) groups and profession; (E) spirits; (F) trees, flowers, reeds and grasses; (G) food grains; (H) foods and drinks; (I) natural and artificial sites; (J) birds and animals (very few); (K) articles of trade; and (L) Events.

The study of the endings or suffixes of place-names and their comparison with the endings of modern place names as well as the interpretation of the names themselves has shown that:

> A majority of the endings can be traced back to a very early period. For instance Panini[1] refers to "*nagara, pura, grāma, kheṭa, ghosha, kula, suda, sthala, karsha, tīra, rūpya, kachcha, agni, vaktra, garta,* (all these used as an *uttarapada* in forming place names), *palada,* (meaning straw, weeds), *arma, vaha, hrada, prastha,* and *kantha,* supposed to be a Śaka name for 'a city.' "

Yet in different parts of Gujarat and Kathiawad certain endings predominate, for example *vasana* in N. Gujarat, and *sthali* in Kathiawad.

That although these endings denoted ordinarily a part of land, enclosure, a part of the village, etc., either because these places had grown up or the endings had become part of the name itself, a second suffix, *grāma* was added on to these names. Till about the 13th century these endings persisted. With the advent of Muslim rule a number of old places came to have new name ending in *pura* or *purā* or totally new places arose bearing such endings.

Antiquity of places as well as new cultural forces were reflected in the names themselves. Whereas in the older names the percentage of names of deities and persons was not much, a fairly large number being after trees, lakes or ponds, some after animals, the new place-names were mostly after persons or deities such as Siva (Mahadeva), Rama, Hanuman, or later forms of Vishnu (Raṇchchhod, etc.). This shows how gradually the cult of personal gods as well as the tendency to pe petuate the memory of or eulogise an individual by naming a place after him had grown. This tendency though natural has been a characteristic feature of Gujarat and Gujaratis, as even a cursory census of names of houses owned by Gujaratis and Deccanis in Bombay, Ahmadabad and Poona would show. The Gujaratis being a largely business community incline to be more materialistic, and cannot think except in terms of money and their family, particularly the person who is supposed to be a fortune bringer whereas the Deccanis can think of such abstract and idealistic names as *Ardhavirāma, Samādhi,* for

1. Agrawala, *JUPHS.,* Vol. XVI, pp. 42-44.

their houses. To a Gujarati even a small cottage is a *Dhana* or *Manekmahal* or *prāsāda*, and a large house a *nagar*.

Some of the older place-names as Kachchna, Bharukachchha, Sābarmati, Dāngarwa have shown how characteristic they are of the physiography of certain regions of Gujarat. Whereas a further investigation into the names indicative of tribal migrations and colonization would throw light on the ethnic composition of the population.

Names such as Vahichar have revealed the true antiquity of certain cults now prevalent in Gujarat.

Botanical and zoological names are few. This is not surprising considering the fact that though most of Gujarat is a rich alluvial plain, it cannot boast of a luxurious vegetation, except where special efforts are made to plant trees. So whatever names of trees inscriptions have provided are fairly representative of the botanical wealth of the country. Some more names of other trees will be known when place-names of the wooded regions of Southern and Central Gujarat will be studied. Inscriptions do not mention them because perhaps these areas did not directly fall within the then urban and rural expansion.

Zoology in Gujarat has nothing special to offer, except perhaps the lion, whose name or of a person bearing such name, is probably enshrined in Simhapura or Sihor on the south-east coast of Kathiawad, whereas in Vāggachcha or Vyāgrāsa in Central Gujarat, seems to have enshrined the tiger, even now found in the forests of Rajpipla and other eastern regions of Gujarat.

The study of place-names alone thus gives us a glimpse of Gujarat, the land, and the people, and their cultural and physical environment.

Place-names of Gujarat both ancient and modern, can be compared in greater detail with those of Bengal and the Deccan-Karnataka but my comments will be necessarily brief, limited only to the striking affinities and differences.

For Bengal we have the recent work of Goswami alluded to by me before. The inscriptional place-names of the Deccan-Karnataka from about 500 to 1300 A.D. have been collected by my pupil A. V. Naik, who is working on the archaeology of these regions. The modern place-names have been gathered by my colleague Dr. (Mrs.) Karve, who is studying them from the sociological point of view. I am indebted to these scholars for their kindness in allowing me to use the material collected by them for a comparative study.

As in Gujarat almost all the place-names from the 5th century onwards are in Sanskrit or Sanskritized. These characteristics generally seem to persist till the end, i.e. up to the 14th century in the inscriptions of the Deccan. Thus to take familiar examples, we have Puṇya and Punaka-vishaya for Puṇe or Poona (since renamed as Pune), Darppapūḍikā for Dapodi, Bhensari or Bhavsari or Bhosari, Khambagrāma for Khamgam, Vorimagrāma for Boree, Dāḍimagrāma for Dālemba, and Ālandīya-grāma for Āḷandi, Thiura for Theur ; Araluva for Urli ; Pālatthāna-vishaya for Phaltan (State) and

Muīlā-nadi for the Mula river. Thus a Rashtrakuta, 9th century, inscription accurately describes the topography of Poona and its vicinity, but in a vocabulary which is largely Sanskritized. Wherever the inscriptional names can be identified, the case will be found to be similar. Three centuries later Śilahāra records called Thana, Sthānka, but as old Marathi is used in the actual grant portion, many of the place-names retain their existing Prakrit form. Are we to understand that till the 10th-11th century Sanskrit was the court language in the Deccan and understood by one and all ?

With Karnataka the case in slightly different. Till about the 5th century the earlier Prakrit and the contemporary Sanskrit inscriptions of Kadambas and others mention place-names which do not appear to be characteristically Kanarese. But the Kanarese influence begins to appear from the 7th-8th century onwards, so that the actual grant portion, including the names of persons and places can be easily described as old Kannada.

A few examples of place-names endings will illustrate the point. In the Deccan place-names we have the endings *pura, nagara, vāṭi, vāṭikā, vāḍā, vāḍi, valli, pallikā, sthāna, -iya, kā*[1] ; in Karnataka, we have a few *puras, nagaras,* with the principal name in Kanarese or at times in Sanskrit, but a large majority like Aṇṇigere, Iṭṭage, and endings with *ḷi*, or *ḷḷi*, and *paṭṭi*. Not only the general ending *grāma* uncommon, but many of the so-called Sanskrit suffixes or endings are rare, are the names themselves; in Kanarese. In this respect Karnataka seems to have shaken off the Sanskrit influence much earlier or imbibed it less than either the Deccan or Gujarat.

But much more surprising appears to be the fact that in the Deccan epigraphy there is not a single place-name after the 6th century with the ending *padra, vadra* or *vasana* and a few only with *pāṭaka, palli* and *valli*. *Padra* is found in an early Andhra inscription, once for a place in the present Nasik district and the other for a place in the present Thana District. Are we to assume that the *padra*-belt of place-names belongs to Gujarat and other northern regions, and had spread in the 3rd-4th century up to Nasik in the south ? The conclusion seems to be very startling and I would leave it as it is, unless further corroboration is available. If it is confirmed, it would further show that the writers of epigraphs did not so tamper with the then existing names while Sanskritizing them as to change them completely, but remained true to their inherent regional forms. For place-names endings in *-padra* are found in the Rashtrakuta inscriptions from Gujarat, while they do not occur in those from the Deccan and Karnataka.

Another significant difference is that already in the Deccan-Karnataka records of the 8th-9th century we find the place-names ending in *e*, for example Kiṇayige, Karaṇḍige, for places found about Kolhapur, Chāniḍige, Miringe, This *e* ending is a characteristic feature of the modern place and personal (surnames) names in the Deccan. Since in inscriptions it largely occurs in place-names in and on Karnataka border, it would not be surprising if it is ultimately proved to be of Karnataka or Dravidian origin.

1. Probably there were diminutive suffixes.

Rarely the-*e* ending is found in the old as well as new place-names of Gujarat.

The Deccan being a hilly and plateau region, place-names indicating or bearing on its physiographic features will be found. We would await with interest the results of Karve's and Naik's studies about place-names of the Deccan, when further detailed comparison with Gujarat place-names will be possible.

In Bengal the inscriptional evidence regarding place-names does not take us at present beyond the 6th century A.D., though we have a limestone plaque from Mahāsthān of the Mauryan period which mentions Pumḍangala (Puṇḍranagara). But from 400 A.D. the evidence is available in an unbroken chain right up to 1200 A.D. Here too Goswami has noted that many of the place-names are in Sanskrit or Sanskritized with a good sprinkling of *Deśī* names, though he has not traced their development, and said whether in the later records we get more Prakrit names than in the earlier period. Goswami has also not clearly classified and grouped the various endings. But analysing the names we get the following endings. (I have omitted some where I was doubtful of the true ending.)

Pāṭakā>Pāḍā>Pārā
Vāṭaka
Vrindaka>vana
Sikā
Gohali>goal
Puñjaka
Kuṇḍa>koṇḍa
Avakāsikā
Viḷati>Vāḍī (?)
Joṭika or Yoṭa>Joṭa>Jola
Vāṭa
Charmmaṭa>Charmada>Chāmrā
Vāḍī
Roṭṭikā
Voraka>Vola>pola
Pallikā
dvipa

Valli
Tenkari
Khādi
Kaṇḍi
Ḍāhara
Thāna
Nagara
Khāmbhava>Khabha
Bhiṭṭa>Bhiṭṭi or Bhiṭa
Gochchha
Guḍi
Vola
Pokhari
Pāla
Bhoga
Muṇḍa

Even after the omission of a few doubtful ones, the list is much larger than that of Gujarat inscriptional place-names. Among the Sanskrit endings common with these from Gujarat are *pura, nagara, pāṭaka, vāṭaka, vāṭa, vadī, pallikā,* and *valli*. There is total absence of *padra* or *vadra* and *vasana*, or even *sara*, though there are many others for lakes, ponds and other types of drainage. *Palli* and *valli* are comparatively very few. *Pāṭaka* becomes *pādā* or *pārā* in modern Bengali.

But the rest, a fairly large number, are characteristic of Bengal, a land of large rivers, and numerous large and small water-courses, and a land which was for long beyond the pale of Aryan civilization, and even now has on its north-eastern as well as

on its western and southern borders pockets of primitive tribes, probably aboriginals of the land.

Expressive of its varied drainage system are the endings *Jotikā* or *Yoṭa* modern *Joṭa* or *Jala*, *Khādi*, *Khāri*, (ditch); *Kuṇdi*, *Ḍāhara* and *pokhara* (pond), *Avasikā* or *Sikā* (channel) and *Vāpikā* ; so also are the expressions "*Sataṭapadmāvāṭī*, house on the bank of Padmā," signifying the way how large a number of people live on the river ; indicative of other types of homesteads are the endings *Bhiṭṭi*, *Bhiṭi* or *Bhitā*. Indicative of the marshy character of the land are the endings—a large number—*viḷati* or *vādī* ; Bengal's extensive fields *voraka*, *vola*>*pola* ; its groves and forests, *puñjaka*, *gaccha* and *vṛndaka* ; of its hills and hillocks endings like *Tenkeri* and *Kuṇḍ*>*koṇḍa*.

Correlating some of the ancient place-name endings with modern Bengali place-names, Goswami finds that "the endings *jola*, *joli*, *jota*, *jotikā* meaning channel, water course, river-water are quite abundant specially in the districts of West Bengal." So also the place-names with the ending in *kuṇḍa*,, *kuṇḍi* or *koṇḍa* (high land). Modern place-names in deltaic Bengal abound in names of various fishes, one of the most common dishes of the people.

Since I am not dealing with modern place-names, it is not necessary to follow further Goswami's studies, but it is necessary to note his conclusion that many of the edings show Dravidian, Austro-Asiatic and Tibeto-Burmese affinities. Thus *jola*, *bhiṭṭi* or *bhiṭi* (house) , *guḍḍi*, *gaḍḍa*, *guḍi*, *pola* and *vola* (field) *kuṇḍa* (hill or hillock) are similar to or identical with words in the Dravidian languages, Tamil, Telugu and Kannada.

Those ending in *muṇḍa* or *da* betray Austro-Asiatic or Munda or Kolarian influence, whereas words *cho* or *cha* meaning water are supposed to be of Tibeto-Burman origin.

These place-name studies reveal how Bengal, which according to later Vedic literature was not aryanized for a long time, in spite of its later rapid aryanization, still retains many of its varied non-Aryan traits ; while Gujarat and the Deccan show a greater degree of aryanization. Bengal being nearer to the primitive cultures of the Far East, and as even now is surrounded by these, has more of the non-Aryan Austro-Asiatic and Dravidian elements, while Gujarat on account of its proximity to the northern Aryan culture has a preponderance of its elements. However, some names and name endings do point to the earlier (?) Austro-Asiatic cultural phase in Gujarat.

Prehistoric Archaeology also seems to favour this view. For the Stone Age industries of the Sābarmati, Narmada, Orsang and Karjan valleys, most probably of the Middle Pleistocene period, the first geological period when man came to live in what is called Gujarat, show such resemblance to the geologically earlier south Indian industries that in our present state of knowledge it appears that Early Man with his Stone Age culture came to Gujarat from south India.

PERSONAL NAMES

Personal names from inscriptions from other parts of India have not been so far studied. My studies of the Deccan personal names of the early centuries of the Christian era incline me to the view that these names,—the sources of which are the donatory incriptions at Bharhut, Sanchi, Bodhgaya and Mathura,—which were mostly inspired by the new faiths, Jainism and Buddhism, or the existing Rudra and Naga cult will show more or less the same features as shown by the Deccan names found in the caves in the Western Ghat, and at Amaravati, Jagayyapetta and Nagarjunikonda in Andhra.

After the 4th century the names are mostly of Brahmanas and are in Sanskrit. But here too the Karnataka inscriptions of the 6th century and later show distinct Kannada touch. Whether these or inscriptions from other parts of India will be so rich in names of the common people as some of those of Gujarat, I cannot say off hand. Very probably not. But these when collected and studied will throw additional light on the results obtained by place-name studies.

Summarising the evidence presented by inscriptions of Gujarat on the nature of names, the practice of naming in a family, and the Brahmana *gotras* and Vedic *Śākhas*, and on comparing it (this evidence) with the practices enjoined by law-givers, or codifiers of laws the following tentative conclusions are indicated.

Since we have no early inscriptions contemporary with the Vedic texts, or even the *Grihya Sūtras*, the latest of which are assigned to the 4th, 5th century B.C. at least, we cannot pass any judgment on the actual practice during this period.

After neerly a 1000 years excepting the names of Śaka Kshatrapas which indicate the popularity of Rudra cult, and the influence of Buddhism on one of the kings, we meet with names in some bulk from the Gurjjara records. Their study showed that most of the names of Brahmanas were *Nakshatra* names, but names of the personal deities, like Vishnu and Śiva were also current, a practice enjoined by the *Vishnu Purana*. Likewise besides the orthodox suffixes, Brahmanas had begun to append non-Brahmana suffixes to their name.

Both these practices indicate almost complete non-observance of the rules laid down even in the latest *Grihya Sūtras* and a literal interpretation of the vague rules prescribed by Manu.

The names of Brahmanas from the Valabhī Plates point to a still larger variety of names, some even completely Kshatriya-like and followed by an equally rich variety of suffixes. Whereas their richness is indeed remarkable, they do not show in our present state of knowledge, that the bearers of the suffixes were Nāgara Brahmanas, as Dr. D. R. Bhandarkar had postulated 20 years ago and that the endings are not indicative of families of Brahmanas, resemble as they do to the endings of Kayastha names in Bengal.

Two centuries later a variety of a slightly different nature is seen in the suffixes and prefixes of the Rashrakuta Brahmanas. In them we can see the beginnings of some of our present day surnames, *Dvivedī*, *Trivedī*, *Dīkshita*. The names themselves show the greater and greater hold the cults of the personal deities were having on the people.

This conclusion as to the rise and rapid growth of the cult of personal gods, and the gradual disappearance of purely Vedic religion and practices is in full accord with the evidence from archaeology, coins and monuments.

But even among the names of personal deities—Śiva and Vishnu—we see the occurrence of certain names only, pointing to the later increase in their names, as different aspects of these deities came to be emphasized or invented.

How very exactly reflective of the contemporary usages, and religions are the names is shown by the fact that there is not a single name after Ganapati or Hanuman, and only a couple or so after Rama and Brahma. This conclusively indicates, as I have already shown from purely archaeological studies and as also our study of place-names testifies, that the cults of Rama, Hanuman, and Ganeśa are comparatively very recent. That of the Ganeśa is not earlier than the 9th century and of Rama-Hanuman definitely post-13th century.

The study of Brahmana *Gotras* and Vedic *Śākhas* showed that up to the 11th century the Brahmanas of the *Mādhyandina Vājasaneya Śākha* prepondarated over others, among which there were a few Rig and Sama Vedis and a sprinkling of Atharva Vedis. This proportion is maintained till today. Among the *gotras*, the earliest and of most frequent occurrence are the *Bhāradvāja*, *Vatsa* and *Atreya gotras*, three of the four or eight most ancient *gotras*.

So much for the pre-Chalukya Brahmanas. Unfortunately the evidence for the succeeding period relates to people who are not Brahmaṇas. Hence we cannot find out what further changes took place in the Brahmana names. Among the non-Brahmana names all the few names are after Śiva or Vishnu and none after *nakshatra* deity. Whether this was becoming a general practice we cannot say for certain. It appears that it was, for we find Vijñāneśvara citing an earlier commentator on the *Yājñavalkya Smriti* (?) saying that a father should give a name connected with a family deity. Thus the practice had come to be legalised. But whereas we observe this expansion of the rules in naming a child in the orthodox codes, we find that most of the names of the Jainas and others falling outside even this expanded codes. Barring a few which are after Jaina *Tirthankaras*, others seem to be neither after *nakshatras*, nor personal deities. What is the reason ? I think that it is so, as I have already suggested on the evidence of name-endings, because these people belonged to a foreign ethnic group. To accommodate these names and incorporate their bearers into the ever-tolerent and expanding Hinduism, we find the later law-givers saying that a name could be given after the letters assigned to each *pāda* of a *nakshatra*. A very wide basis was thus secured, giving people more room within which they could choose the name they should give the new-

born. Uptil now this practice was followed. But again a new current has set in, due to political and cultural reasons. Will these new practices be legalised or will religion be completely thrown overboard, and have no voice as far as the naming of a child is concerned ?

In the Chalukyan period we have the earliest reference in Gujarat of the functional,[1] and "regional" sub-castes, as well as professional and other designations which have now been turned into surnames ; so also the earliest occurrence of the word "*Bāī*" as an honorific, perhaps due to Turkish or Arabic influence, first used along with the old word *Devī*, in the names of women, and then gradually supplanting it, till it itself is being supplanted by another foreign word Miss or Mrs brought by new culture-contact. Many of the present sub-castes such as *Porvād*, *Dharkaṭṭa*, *Osvāla*, *Śrīmāla* were originally, as *Srimālis* are even now, regional sub-castes, giving no indication as to the *varṇa* of the people. And probably many of the *Porvād* and other families, originally foreigners, Śakas, Hūṇas or belonging to other Central Asian tribes as their name endings show were first Kshatriyas and then Vaṇiks. But it must be noted that at this period these were not endogamous, as marriage between *Prāgvaṭas*, *Moḍhas*, *Oisavālas* are recorded. Later these groups did prohibit marriages among themselves. Now once again *Porvaḍs* and *Moḍhas* inter-marry.

Thus the survey of personal names in Gujarat over 1600 years has revealed how gradually certain features of its social structure were being formed, which at the end of the 14th century had reached a form approximating very nearly the form existing today. Some other features, for instance the ending *lāl* which is now found as a suffiix to names of Brahmanas, Kshatriyas, Vaiśyas and all others, and the suffix *-ji* in names such as Nāgji, Bhimji had not yet apppeared. The social, political and religious causes which were responsible for bringing about the new additions to the already existing stock of names and suffixes seem to develop during the first 300 years of Muslim rule in Gujarat. For both these suffixes appear in the names occurring in inscriptions of the 16th-17th century. A full and complete investigation of the causes is indicated and their effect on the social structure is urgently desirable, as shown by me elsewhere.[2]

The study of inscriptional places and peoples has thrown light on several aspects of ancient and early medieval culture of Gujarat and their corresponding modern counterparts. But this has been from one side only. What is necessary is to make the subjects discussed in these lectures more exhaustive and comprehensive. Then only we shall know how far the conclusions or suggestions arrived at are wrong and need modification.

Actual field work, visit to every village identified or now mentioned in revenue and postal directories is necessary. The investigator should note in this survey the physical, geographical or traditional causes which are supposed to be responsible for the name

1. These must have been already there, as these have been noted elsewhere in India from at least the 1st century A.D.
2. *BDCR I*, Vol. VI, p. 77.

of the place visited. He should also note the different ways in which the name is pronounced and written by the various communities inhabiting the village.

Side by side with these we must have a corpus or two of place and personal names occurring in early medieval Sanskrit and Prakrit literature. Another similar corpus from Arabic, Persian, and the 16th century and later Gujarati and Marathi and Modi papers of the Maratha period, and the early maps prepared during the East India Company's period.

Collation of the data from all these sources of the post-thirteenth century and the pre-thirteenth century inscriptional and literary data will give us a regular series of names of places and peoples, wherein the historian and the linguistician will find the missing intermediate forms so necessary for the true reconstruction of cultural history of a region.

Attention should also be devoted to the collection of surnames by castes and sub-castes, noting wherever possible the original, traditional or otherwise, place of residence and the profession followed by the members say 50 or preferably 100 years ago. Such a study alone can reveal the various social and cultural factor underlying a surname. For welcome as is the study of Gujarati surnames by Mrs Vinodini Nilakantha it does not go far enough.

Cognate to this is the study of Brahmanas. As I have said previously Wilson's and Enthoven's study, admirable as they were for the period when they were written, give us but few details. Since these pioneers wrote, good work is being done by the School of Sociology, but probably for want of suitable students the work is very slow. Unless it can be expedited and the several Brahmana sub-castes systematically surveyed, followed at the same time by their anthropological survey, as is being done in the Deccan College Research Institute, Pune, no fruitful results will be obtained. Meanwhile the evidence is fast disappearing or being more and more contaminated.

So much for the semi-linguistic, historico-geographical, sociological and anthropological studies. I turn now to the investigation of history through archaeology. Students of Gujarat's historical archaeology know that very little is known about Southern and Central Gujarat, whereas we do know something of Northern Gujarat and Kathiawad through the surveys of surface monuments in the last century by Burgess and Cousens.

How are we to search for fresh monuments ? Either there must be some clues which, when followed up may reveal the hidden or even surface monuments and its true historic value or there must be a systematic survey, taluka by taluka as Mr Gadre of the Baroda Archaeological Department[1] was doing up to last year, since 1934, but which is now stopped for want of assistants. This work is both costly and long.

Here the inscriptions can help. They sometimes refer to a temple or other monument erected at a certain place. If this place is identified, then a visit to the

1. Since merged with the Archaeological Survey of India (Eds.).

place will most probably lead to the discovery of the monument. Even where no monument is mentioned in inscriptions it would be worthwhile to investigate all those places which have been mentioned in inscriptions or other records and identified. The identifications give invaluable clues as to the antiquity of the place. And in the absence of regular village -to-village surveys, inscriptions are the only and the most important clues. A personal visit to these places may show besides surface monuments in many cases the ancient mounds. The study of these mounds, the debris strewn over them, might lead us to ancient potsherds, the most indestructible and important evidence of the once existing habitation at the place.

The present study of place-names has brought to light a number of such places in Southern, Central, Northern Gujarat and Kathiawad. These should now be visited and systematically investigated. The investigator need not confine himself merely to the archaeological account of the place. He should interest himself in its complete cultural history. Previous training and interest in the subjects dealt with here should enable him to prepare a full "case-history" of the areas he visits. These will form the basis for all subsequent archaeological, linguistic and sociological investigations.

My studies have revealed only a few facts, in some cases very dimly indeed, of Gujarat's past culture through historical and cultural geography and ethnography. These must need be supplemented soon by several field surveys. How these should be tackled has been briefly indicatad above.

When and whether the regional Universities will come into existence one does not know. But it is not too much to hope that various research institutions in Gujarat, besides the University of Bombay will make provisions for these archaeological, sociological and linguistic studies. If started in the near future on a well-planned scheme and worked out systematically by a trained body of workers we shall have in a decade or so the true basis for writing a comprehensive history of Gujarat.[1]

1. I must thank here the University of Bombay for allowing me to publish this summary, before the lectures are published by them. I also take this opportunity of thanking my friend Dr S. M. Katre, the Director of the Deccan College Postgraduate and Research Institute, Pune, for helping me in working out the geographical and ethnographical data from inscriptions and the Manager, Huzur Political Office, Baroda, for lending me the Census Reports of the State. (The erstwhile Baroda State forms part of Gujarat State at present—Ed.).

THE ORIGIN OF GURJARAS

Much has been written since Dr D.R. Bhandarkar[1] propounded the theory that the Gūrjaras were foreigners, probably a Central Asian tribe. Even after Mr Munshi[2] voiced his views against this theory, Dr Tri pathi[3] and Mr Shah[4] have tried to uphold Bhandarkar's theory. While working on place and personal names of Gujarat, I had occasion to study Munshi's point of view. But with due deference to him, I would submit that his views do not carry conviction. Below I have tried to answer his principal arguments, as well as adduced new evidence from the study of personal names to show that probably a part of the population of the old and new Gujarat was of foreign extraction.

By recapitulating in detail the literary and epigraphic references to the Gūrjaras from the 7th to the 12th century, Munshi has sought to prove that the word Gurjjara or Gūrjara stands for the country, primarily southern Rajputana, the region around Mount Abu, and secondarily the region which came within this Gūrjara's suzerainty, but never for the race, tribe or people.

If other regions in the far off Punjab or after the 10th century, the present Gujarat came to be called after this name, it was because political or cultural influences had spread from Bhillamāla, the capital of Gurjjara country, and not that the various tracts in the Punjab and Rajasthan came to be so named, because the progressive southern expansion of the Gūrjara tribe, a tribe supposed to be allied to the Hūnas, and later than the Śakas.

Granting that the influences radiated from Bhillamāla, in the Gūrjaradeśa the question "How and when did this country come to be called Gūrjara" remains to be answered.

The *argumentum ex silencio* has more than ordinary significance in this case and it is not enough to say that it does not matter whether the *Mahabharata* mentions or not the Gūrjaras along with other foreign tribes, such as Śakas, Pahlavas, Daradas and Yavanas. Let alone the *Mahābhārata* and other early literary works like the *Manusmrti*, or the later 4-5th century works like the *Raghuvamśa*, and Vatsyāyana's *Kamasutra* (which incidentally mentions Madhyadeśa, Bālhīka. Avanti (E. Malwa), Malwa, Ābhira,

1. *JBBRAS*, XXI, p. 405 ff. For the list of other earlier writers see fn. 2, where these have been cited by Munshi.
2. Munshi, K.M., The Imperial Gūrjaras, *The Geory that was Gūrjaṛādeśa*, pt. III, Bombay, 1944, pp. 4 ff. and *BV*, January, 1945, p. 10 ff.
3. *Social Welfare*, Annual Number, 1944 cited by Munshi, in *BV*, *op. cit.*
4. *JGRS*, April-July 1945, pp. 115-117.

Sindhu, Madra, Aparānta, Lāta, Strarājya, Kośala, Āndhra, Mahārāshtra, Nāgara, Dravida, Vānavāsika, Gauda, Prāsya, Ahichchhatra, Sāketa, Sūrasena, Vatsa-gulma, Vidarbha, Saurāshtra, Haimarata, Vanga, Anga, Kalinga) and a Buddhist work called *Mahāmayuri*[1] of the early Christian era, which also gives a long list of places from all over India; no reference to the people or the country Gurjjara is made in three important historical records of the early centuries of the Christian era. These are the Rudradaman inscription at Girnār, the Vāshiṭhiputra Śātakarni inscription in the Nasik caves and the Allahabad Pillar inscription of Samudragupta. These are fairly accurately dated now. The first two fall in the latter half of 2nd century A.D., and the third in middle of the 4th century. Their value lies in the vivid description of the then political geography of northern India, in the 2nd and 4th centuries respectively. Particularly important are the first two. For what the first says, the second confirms but from its point of view. Thus we have the same evidence from two diametrically opposite camps.

According to Rudradaman's inscription we have the following countries and tribes or peoples in the western half of northern India :

Purva and Apara Ākarāvanti, Anūpa, Ānartta, Sūrāshṭra. Svabhra (?), Marukachcha, Sindhu, Sauvīra, Kukura, Āparānta, Nishāda, the Yaudheyas and Sātakarni, the lord of Dakshināhpatha.

Siri Pulumāyi Vāshiṭhiputra, is described in the Nasik inscription, as the king of Asika, Asaka, Mulaka, Suratha, Kukura, Anupa, Vidabha, Ākarāvantī, and as one who had crushed the pride of the Kshatriyas, destroyed the Śakas, Yavanas, and Pālhavas, and rooted out the Kshaharāta race.

Most of the countries in the two lists are too well-known; others have been satisfactorily indentified. It is to be noted that Śātakarni does not claim to be the lord of Northern countries, nor even of Ānartta, but is content with the destruction of the northern tribes.

What was known later as Gūrjaradesa, or Rajasthan was called Marukachcha, Sind being called Sindhu, its other part Sauvira, and northern Gujarat Ānartta, and the region of the Sābarmatī, probably Śvabhra, while the Yaudheya and Mālava tribes, as the numismatic evidenc shows occupied southern Punjab and northern Rajasthan respectively. The latter subsequently moved on to Central India, hence much of the region is even now called Malwa (from Mālava).

Two centuries later, while describing Samudragupta's *digvijaya*, these tribes and rulers of the Punjab and almost the whole of northern India, Aryāvarta, as the inscription expressly calls the country, are mentioned. Since there is no allusion to the Gūrjara country in these pre-fifth century historical landmarks, and a crop of references in the post-sixth-century records, the presumption is natural and strong that the Gūrjara country and people came into the forefront of Indian politics during this interval.

1. Agrawala, V.S., *JUPHS*, XV, 2, pp. 24-52.

This was a period of chaos, consequent upon the disruption of the Gupta empire brought about by the Hūna menace. So if it is thought that the country or various parts came to be called Gūrjara after a tribe of the same name, which had come along with the Hūnas, there is nothing inherently wrong or improbable.

It does not matter that in the 7th century when we first meet the Gūrjaras they appear as Aryans, Brahmanas, Kshatrias or Vaisyas, and protectors of the *Varṇāśrama dharma*. For so does the Śaka Rudradaman in the second century A.D. and the Kushana Kanishka and his descendents Huvishka and Vasudeva. This is indeed the strength and vitality of Indian culture, that while yielding in the political sphere, it soon absorbs the aggressor. This fact has been cited by Mr Munshi himself.[1]

And that is why it is not necessary to answer such questions as "where did the old kshatriyas go" when the Gūrjaras came, or that "Rajputana etc. were not empty spaces."

What appears to have happened is that though the Gūrjaras, Śakas, Hūnas, and others were soon absorbed within the ever expanding Hindu fold, the politically dominant tribe, which could remain so much longer, or one of whose members happened to be ruling when the foreigners—Muslim merchants, visited India, and other contemporary or the Gūrjaras own records came to be written, gave the name to the country after this tribe.

This has happened several times in Indian history from the Rigvedic up to recent times.

India was called *Bhāratvarsha* after the tribe *Bharata*, or the son named Bharata, of Puru clan, whereas within recent memory Kathiawad which was for 2,000 years called Surāshtra, came to be so called after the Kāṭhi tribe, which was certainly not so numerous as to oust all other earlier inhabitants. It is the political (martial) or cultural dominance and superiority that very often decides the case. The former political dominance of the Gūrjara tribe, seems to have been responsible for the term Gūrjaradeśa.

If, "the word Gūrjara need not be assumed to be applied to the race of the king but to the country over which he ruled," as suggested by Mr. Munshi,[2] it can be well suggested that in all cases it need not be applied to the country. In some of the cases cited by Mr. Munshi, *not the country, but the family or the people is referred to.* And certainly so in some of the earliest epigraphic records, viz. of the Gurjjaras of Bharuch. Here Dadda is described as belonging to the *Gurjjara nṛpativamsa*, which as *Chalukyavamsa* or *Raghuvamsa* should stand for the Gurjjara family and not the county. Expressions like *Gurjjaratra*, or *Gurjaratrabhumi* or *maṇḍala* would only mean land or *maṇḍala* belonging to the Gūrjara people.

1. Munshi, *op. cit.* p. 7.
2. This argument is repeated by Munshi, "The Gūrjara Myth," *BV*, January 1945. p. 10 as one of the indisputable facts. But not only is this reasoning wrong, but grammatically the sense would be as pointed out above.

Now there is some evidence to show that the Gūrjaras were connected with the Śakas, an admittedly foreign tribe. This is mostly linguistic, based on personal names. I am glad to find that Mr Munshi admits such evidence. For while noting the resemblance between the Chahamana Maheśvaradana of Bharuch and similar name or ending in the Śaka Kshatrapas of Malwa and Surāshtra he says, "If any importance is given to the word 'Dāmā,' it gives an indication to his ancestor's association, either by heredity or otherwise with the Western Kshatrapas like Jayadaman or Rudradaman."

Once we concede the hereditary or other connection between the Śakas and Chahamanas, we have to extend the same to the Gūrjaras, Chahamanas and Paramaras. For, Mr Munshi himself says that all these were allied clans and associated with the Gūrjaradeśa from about the 6th century.

How the country got its name, either from an individual, or a tribe, or its physiographic features, and whether the word is Sanskrit, has got to be explained. This, however, limited nature of linguistic and ethnographic evidence, seems to be foreign, probably Central Asiatic in origin.

The linguistic evidence, pointing to non-Indian origin of the Gurjjaras, does not consist only of "two-three non-Sanskritic names," which for the first time occur in the inscription of Bāuka,[1] as Munshi[2] contends. A host of names of the type which occur in this record such as, Bāuka, Chanduka, Sīluka, Kakka, Rājjila, Rohilladdhi, Dadda,[3] Jajjika, are also to be found in the Chalukya records from Gujarat and Rajasthan. Thus the evidence is not negligible.

It remains to be explained what the nature of these names is. Some of the names may be derived from Sanskrit, either partly or wholly, but those which look like Prakrit names cannot be understood as their formations seem to defy or fall outside the rules given for the formation of Sanskrit and Prakrit languages. It is to be noted that at times the Sanskrit and Prakrit inscriptions give the same word in identical manner, which indicates that the word was known that way and could not be further Sanskritized or Prakritized. Thus Kakka and Rājjila appear unchanged in the Sanskrit and Prakrit inscription from Ghatiyala,[4] whereas Pratihara appears as Padihara, Jhota as Jhoda, Chanduka as Chandua, Gūrjaratra as Gujjaratta and so forth.

The Prakrit sounding names from Chalukya inscriptions, according to their endings have been grouped into the following classes :

Names ending in ḍa

1. Āhada
2. Āmbada
3. Bhīmada
4. Chāhaḍa
5. Chāhuḍa
6. Chāda
7. Dāhada
8. Deda (?)
9. Dhuhada
10. Jasahada

Names ending in ga

1. Āmiga
2. Chāchiga
3. Chāṅga (?)
4. Dhauliga

1. Jodhpur Inscription of the Pratihara Bāuka, *JRAS*, 1894, pp. 4-9.
2. *BV*, Jan. 1945, p. 11.
3. On this see *JRAS*, Vol. V, P. 228. fn. 10.
4. *JRAS*, 1895, pp. 513-21.

Names ending in ḍa

11. Kākhaḍa
12. Khimada
13. Nāgaḍa
14. Dethaḍa
15. Punada
16. Sakhaḍā
17. Sāvadā
18. Sohadā
19. Vāhada
20. Vāhadi
21. Vāhudā
22. Vājaḍa
23. Vohadi

Names ending in ga

5. Dharaniga
6. Putugi deva
7. Pumga
8. Putiga
9. Raniga
10. Sāliga.
11. Sohagā
12. Sumiga
13. Vāliga

Names ending in lha or lhana.

1. Ālhā
2. Āhlana
3. Ālhanā
4. Alhanā
5. Delha
6. Delhana
7. Jālhana
8. Kalhana
9. Kilhana
10. Malhana
11. Pālhana
12. Pralhādana
13. Rālha
14. Sālha

Names ending in la

1. Āsala
2. Bhola
3. Chāhila
4. Desala
5. Gosala
6. Gajaīla
7. Pāsaīla
8. Rāsala
9. Sahala
10. Sādhala
11. Vāpala
12. Vaijala
13. Vīsala

A few of the names in each group might be derived from Sanskrit as

Āmbaḍa < Āmrabhaṭa.
Vāgada < Vāgabhaṭa.
Sohagā < Śobhanā (?) Saubhāgyā.
Pālha < Pralhādana

but most of the names cannot be so derived. Even Vāgada and others seem to be attempts to sanskritize Prakrit or foreign words, for they appear in Sanskrit works written by Jaina *acharyas* of the period.

What are these names ending in *da*, and *ga* ? One explanation is, as suggested by Dr Katre, that these are Śaka names or name-endings, or Sanskrit or Prakrit names śakaized because the bearers of the names were either Śakas, or Gurjjaras or some such people from Central Asia. If we look to the other details about persons bearing these non-Sanskritic, non-Prakritic names we find that most of them are Jainas, belonging to the sub-castes Prāgvāṭa, Oisavāla, Dharkkaṭa, many of them merchants, and original residents of Rajasthan. One of them, Pethada is called actually a Gurjjara. So it would not be surprising that these Jainas and others, all having śakaized name endings, belonged originally to the Gurjara tribe which colonised first in the Punjab, and then in Rajasthan. And since during the Chalukya period, they flocked to northern Gujarat, occupied some of the most important positions in the realm, and acquired immense wealth and the new country which they colonized came to be called after them—Gurjaratra, and later Gujarat. This would explain why so many of them are Jainas. Just as in the earlier period Buddhist claimed a number of converts among the Śakas and Indo-Greeks, and now Christianity claims among Kolis and other aboriginal tribes, so Jainism could claim a large share of these foreigners. Still a smaller number perhaps did find

entrance in the Hindu-fold, as the specification of the religion of a number of persons would show. Some of them might be reconverts too, as many of the *Provāḍas* (Prāgvāṭas of the epigraphs) who were Jainas some 700 years ago, became Vaishnavas by the efforts of Vallabhāchārya in the 16th century, and are still so.

These Prakrit-sounding names are, therefore, of immense ethnological significance pointing as they do to the foreign elements in the population of the Chalukya Gujarat, and to the consequent change in the country's name. For not only the rulers possibly were, in not a far too distant period, of foreign descent, but even part of the population was also of a similar origin.

I, therefore, stick to the view that the present word Gujarat comes from Gurjjaratra and not from Gūrjararāshtra. How gradually the term Gurjjara came to be applied to the areas forming modern Gujarat we can learn from a few references in the Chalukya records.

The Dohad inscription of Jayasimha's time is the first to refer to Gurjjaramaṇḍala. It says "Srī Jayasimhā is the king (*bhūpa*) of Gurjjara-maṇḍala." He threw into prison the lords of Surāshtra and Mālava. The capital of his (kingdom) was Anahilapāṭakanagara, as Ayodhyā was of Rāma....." From this I am inclined to the view that in Jayasimha's time the term Gurjjara-*maṇḍala* was applied to northern Gujarat only. Surāshtra and other *maṇḍalas* were being conquered then.

About 30 years later an inscription from Prabhās, Kāthiawad calls Kumarapala the lord of Gurjjara-*maṇḍala*, but gives no indication of its limits, These are however indicated by Girnar inscriptions of V.S. 1286 (1230 A.D.). These include, among the chief (*pramukha*) cities in Gurjara-*maṇḍala*—Anahilapura, Dhavalakka, Bhrugupura, Stambhanakapura, Darbhāvati (Dabhoi), that is practically the whole of modern Gujarat, including Dholka in n. Kathiawad and Broach, Cambay, and Dabhoi in central Gujarat.

It is, therefore, not true that the term Gujarat came to be applied to the region now known by that name during the Muslim period by the Muslims. Definitely from the middle of the 12th century, but probably from an earlier period still, northern Gujarat was called Gurjjara-*maṇḍala*. Its application was extended to include parts of Kathiawad, and central Gujarat 50 years later. The Muslims perhaps extended its limits still further to include southern Gujarat and probably the whole of Kathiawad.

Why was the country called Gurjara-*maṇḍala* when the dynasty was called Chalukya ?

The true explanation probably lies in the inference hinted at by the interpretation of personal names, viz. that most of the prominent citizens, the warrior as well as the merchant class, belonged originally to the Gurjjara tribe, which had gradually migrated southwards. Settling down in the present northern Gujarat and Rajasthan they had been rapidly Hinduized or Jainized, as were the early Greeks and Śakas, so much so that

little trace can now be seen of their foreign extraction,[1] except in the names of their forefathers recorded in inscriptions. These had already begun to form "regional sub-castes" all probably originally allowing marriages within these sub-castes, but later becoming endogamous.

1. An anthropometric and Blood-Group Survey of some of these sub-castes when completed might reveal their true ethnic affinities.

LĀṬA—ITS HISTORICAL AND CULTURAL SIGNIFICANCE

Lāṭa is an old name, applied to a part of the Western coast of India between Bombay and Ahmadabad. It is an ethno-geographical term, and as such its history is very interesting. Historically, the word Lāṭa is not very old. It is mentioned for the first time in a foreign work[1] which deals incidentally with parts of India. Ptolemy, a versatile scholar-astronomer, mathematician and geographer from Egypt—in his *Geography*, while describing Western India includes three places—the mouth of the river Mophis, Pakidare, a village and Cape Malaeo—under Larike, after the section on Syrastrene (Saurashtra or the peninsula of Kathiawad). This Larike has been generally identified by all scholars with a slightly later word "Lāṭa," as the geographical details about both are similar.

It would appear that in the time of Ptolemy, Lāṭa or Larike had a very restricted meaning, and included the land between the river Mahi (Mophis) and the Narmada, as in the next section the gulf of Barygaza (Bharuch) is separately mentioned. Whatever it be, since its occurrence towards the middle of the 2nd century A.D., the word Lāṭa figures regularly in Sanskrit and Prakrit literature, epigraphical records, and accounts of the Chinese travellers and early Islamic merchants from the region and outside until the 14th century or so, while some of the inhabitants of the region are even now known as "Lāḍ Baniyas"[2], "Lāḍ Brahmins" and Kumbhars (potters).

Thus "Lāṭa" had come to occupy a distinct geographical, ethnographical, linguistic and cultural existence within India. Each of these aspects is briefly discussed below.

Lāṭa in its narrower connotation, referred to the region between the rivers Mahi and the Narmada, that is parts of the modern districts of Bharuch and Kheda in the present State of Gujarat. In its widest expanse, it is said to extend as far as Ujjain

1. McCrindle's *Ancient India* as described by Ptolemy, Sastri, Surendranath Majumdar (Calcutta 1927), p. 38.
2. Enthoven, R.E.; *The Tribes and Castes of Bombay*, Vol. I, p. 220; Vol. III, p. 428. The earliest reference to Lāḍa, a Prakrit from, is in *Mañjuśrī-mūla-Kalpā*, a Sanskrit Text., p. 43, edited by Jayaswal, K. P., in *An Imperial History of India*.

(Malwa, Central India) in the north, and Thana[1] or Bombay in the south. Normally, however, as the epigraphical records of the 5th-14th century A.D. show Lāṭa comprised the country between the Mahi in the north and the river Damana in the south or the districts of Kheda, Bharuch and Surat and parts of Thana District.

This area forms a part of the western seaboard of India, having the Arabian Sea and the Gulf of Cambay as its borders. These are again comparatively very recent names. But it would appear from the accounts of Ptolemy and some Arab geographers that these seas or parts thereof were called "Larika" or "Latika" after the region they washed. And this or similar name was applied to south of Sindh.[2]

If this be so, then the word Larika or Latika cannot be derived from the Sanskrit word "*Rāshtra*" or "*Raṭṭa*"[3] nor is this part of the country ever called by the simple word "*Rāshtra.*" The latter in fact and its rulers or inhabitants, viz., *Rāshtriyas* have been, with greater justification, identified with parts of the Deccan-Maharashtra. The suggestion in the *Bombay Gazetteer*[4] that "*Laṭṭalura*" occurring in the Rashtrakuta records was in Lāṭa and gave the name to the region is also to be discarded. For this place is to be identified with Latur in the Osmanabad District of the present Maharashtra State.

It has been argued[5] that, since the whole of the western coast has been described and known as the home of *linga* (phallic) worship, the region was called "Lāṭa" or "Lara" by foreigners. And this word, perhaps foreign, means a pillar, which a *linga* usually is. However such baetic pillars were worshipped in Crete, Asia Minor and other countries of Western Asia and also in Sind. So it is difficult to say why the coastal strip of Gujarat alone should be called "Lāṭa."

There is no archaeological evidence to support this conjecture ; the only place which is positively associated with Siva is Karavan or *Kāyāvarohaṇa.* Here Siva is believed to have incarnated himself as Lakulīśa. Large phallic stone emblems with the face of the Shiva have also been found. But these are not earlier than the 6th century A. D.

We have, therefore, to rest content with the remark that no proper explanation of the word "Lāṭa" can at present be found. It must be in existence before the 2nd century A.D., as it has been mentioned by Ptolemy. If it was at all a foreign name, a name of a tribe or people, as suggested by the *Bombay Gazetteer*, it must have been applied in times which on the available evidence has to be regarded as prehistoric. There is definite

1. According to Al Masudi (A.D. 943) Thana was on the Larwi sea, and Larwi language was spoken there. This is confirmed by Al Biruni (A.D. 970-1031) who says that Lar country began from Thana and mentions further that Bahuj (Broach) and Rahanjur or Dhanjur (Rander ?) opposite Surat were the two capitals of Lar Desh. Elliot, H.M. and John Dawson, *The History of India as told by Its own Historians*, (London 1867), Vol.I, pp. 24 and 61 and Appendix, p.378 and *Bombay Gazetteer*, Vol. I, Part I, p. 524.
2. *Ibid.*, p. 378.
3. As suggested in the *Bom. Gaz.*, *Gujarat*, Vol. 1, Part I, p. 7.
4. *Ibid.*
5. Joshi, Umashankar, *Purāṇomā Gujarat* (in Gujarati), Ahmadabad, 1946, pp. 173-76 citing Ratnamanirao Jote's *History of Cambay* in Gujarati.

indication in a Buddhist tradition preserved in *Divyāvadāna* that the country in and around Broach (Bharch) was invaded by a king of Sind (called Sauvīra) or occupied by a people migrating from Sind.[1] And we have got (and are finding every year) archaeological evidence in the shape of painted pottery that the Indus or Harappa civilization once extended as far as and Surat.[2] So it is in this that we might find the meaning of the ward "Lāṭa". Some support to this suggestion might be found in Shri Krishnachandra Topanlal Jiatali's work.[3] He quotes a Sindhi proverb, according to which the present Larkana or Lāḍakānā is so called because it was the home of the Lāḍakas. Since the famous site of Mohenjodaro is situated in Larkana, Jaitali further thinks that it might be related to the Lāḍakas. He then cites Laristan in the Persian Gulf, Larsa in Iraq, Larnaka in Cyprus and Latakia in Turkey, and thinks that these names point to the route of the Lāḍa or Lāṭas. Without scientific research, all this may seem fanciful.

Whatever it be, during the early historical period (*c.* 250 B.C.—1300 A.D) the region or parts of it, was ruled by a number of kings and dynasties, some of which were merely feudatory of a distant overlord. Who the king or kings were during the Maurya period is not known. According to a Jaina tradition, before the Mauryas, the region was under Pradyota of Ujjain (*c.* 550 B.C.). In about 100 B.C. the whole coast, but particularly Bharuch and Saurashtra had come under the influence of the Indo-Greeks. Its suzerainty was then contested by the Śakas and the Satavahanas for nearly three hundred years, of which we have a graphic account in the *Periplus*.[4] "Caliena (modern Kalyan, 34 miles from Bombay) became a lawful market town ; but since it came into the possession of Sandares, the port is much obstructed and Greek ships landing there may chance to be taken to Barygaza (Bharuch) under guard."

During this time, the Ābhīras, also got possession of Lāṭa, but later lost it to the Traikutakas. It is from this period,—though earlier the rivers Tapi, Damana, and Dahānu are mentioned in the inscription of Śaka Ushavadata, who had arranged for ferries on these rivers,—that we begin to get some details about the territorial divisions and their administration in Lāṭa, though the name 'Lāṭa,' is not yet found in inscriptions of this period.

Soon after, however, King Harisena of the Vakataka family claims to have driven out the Traikutakas and conquered "Lāṭa." Thus, it is in about the 5th century that the term "Lāṭa" as a territorial unit begins to supplant or used with the earlier term "Aparanta," which was applicable to the whole of the western seaboard, and the contemporary term "Konkana." But whereas these terms had a much larger connotation, "Lāṭa" had a restricted one, and as said before meant either the territory between Kheṭaka (Kheda) in the north and Thana in the south.

The Vakatakas were ousted by the western Chalukyas of Badami. They established their capital at Navsāri (Navsārikā or later Nāgasārika) which, if identified with

1. Cowell and Neil (Ed.), *Divyāvadānā*, p. 586, cited by Malalasekara, G.P., *Dictionary of Pali Proper names*, p. 365. f.n. 6.
2. *IAR*, 1957-58, pp. 13-17 and 5-8.
3. *Sindhi - Bhāshākā Saṁskipta Parichaya*, (in Hindi), Poona, 1957, p. 50.
4. Schoff, Wilfred H., *The Periplus of the Erythrean Sea* (London), p. 43 and McCrindle, J. W., *The Commerce and Navigation of the Erythrean Sea* (London 1897), p. 128.

Nausaripa of Ptolemy,[1] would be a very old place. While southern Lāṭa, south of Tapi was thus ruled by the Chalukyas, the northern part beyond the Tapi and the Narmada came under a Gurjjara dynasty which governed the region for nearly 150 years from their capital Nandipuri (near modern Rajpipla). Of course, there were other vassals as well. Of these only recently we are geting some details about the Sendrakas. This appears, like the Chalukyas, a southern or Kannada family which had migrated to Gujarat from Karnataka. This family ruled the *Deśa*, or the upland, east of Surat and Bharuch, now under Nasik District. Then for a brief period when the Gurjjars were at Bharuch, Silāditya I of the Maitrakas of Valabhī got control of Southern Gujarat (which is specifically called the country of the Lāḍas (*Lāḍānām Jānapada* in *Mañjuśrī-Mūla-kalpa*) and in the north upto Ujjain. By the middle half of the 8th century the Chalukyas of Navsari and Badami were supplanted by the Rashtrakutas of Mānyakheṭa (Malkhed) and the Gurjjaras of Bharuch by the Chahamanas, another feudatory of the Imperial Gurjjaras. In this rapid change of rulers, how the country—Lāṭa—fared, we do not know. But from this period increasing details are available about the administrative units and places and about the social set up of the region. More and more Brahmana families were being settled from the north—Kanauj or Kanyakubja, Vadnagara (Ānandapura), Valabhī and the south. The Rashtrakutas began to lose their hold over Southern and Central Gujarat by the latter half of the 10th century. And before the Paramaras and a Chalukya family occupied Bharuch, it and the region south of Surat, we find from recently published records[2] that Samyana *maṇḍala* or 700, that is a part of the modern Thana District, was first under a Muslim Governor under the Rashtrakuta emperors, Krishna II and Indra III (between 875 A.D.–928 A. D.). The name of this governor is Sanskritized into Madhumati from Muhammad. He was an Arab called "Tājika." His other name was Sugatipa. He conquered the chiefs of all the harbours (*velākula*) in the neighbourhood. From the accounts of early Islamic merchants and travellers, it was known that the Muslims who were mostly Arabs –received a favourable treatment from the Rashtrakutas. This record not only confirms this view, but tells us that the Arabs were entrusted with the government of the Samyana *maṇḍala*.

Later in the Śaka years 956, 969 and 975, that is from A.D. 1034 to A.D. 1053 Samyāna Pattana—700 (meaning probably revenue of 700 villages) was under Chamundaraja and Vijjala. These were vassals—*Rāṇakas and Mahāmaṇḍaleśvaras*—under the Śilahara Chhinturaja (Chhitaraja 1.) Evidently the Arab governor was ousted by the Śilaharas and it is significant that their governors were Moḍhas, who must have migrated from North Gujarat.

The period between the 11th-14th centuries was again a period of tension for Lāṭa, as for many other parts of India. Lāṭa is hemmed in by Gujarat on the north, Konkan on the south and Maharashtra on the east. Its seafront could boast of fairly good ports from the earliest times. So for its possession the then powers—the Chalukya or Solankis of Anhilwād Pāṭan, the Paramaras of Malwa, and the Śilharas of Konkan and the

1. Sastri, *op. cit.*, p. 39.
2. *Epi. Ind.*, Vol. XXXII, pp. 45-60.

Yadavas of Devagiri contended. Bharuch and later Cambay were the key ports. Twice or thrice the Chalukyas had conquered the country as far south as Navsari, whereas the Paramaras tried to hold Baruch in between, and the Yadavas tried to wrest it off from both these northern rulers. Ultimately all these were engulfed in the Islamic invasion at the end of the 13th century. And with this Lāṭa itself ceases to be so-called, though the early Islamic merchants included Lar in the region as far down as southern Konkan, that is the country south of Bombay. However, as late as 1400 A.D., if the reading is correct, Broach (Bharuch) and the country east of Bharuch was included in Lāṭa *deśa*.[2]

Lāṭa in the beginning was known as or was only a *Vishaya*, meaniug thereby a region as big as a modern district or the word "*Vishaya*" was a general name for a country. It is in this sense that it seems to have been used by the author of the Mandasor Stone Inscription of Kumaragupta and Bandhugupta in the (Gupta) years 437-38—473-74 A.D.[3] Until about this period, the country south of the Tapi was included in Aparantadeśa and later Konkaṇa *maṇḍala* or *deśa* and that to the north formed two or three *vishayas* as "*Antarnarmadā*" the doab between the Mahi and the Narmada. About the 8th century, we first hear of Lāṭa in a Chalukyan record. This may be called "Southern Lāṭa" to distinguish it from "Northern Lāṭa" the region north of the Tapi. Some such kind of distinction was also recognized by old writers. Brihaspati[4] author of an *Arthaśāstra* in his description of India refers to northern and eastern Lāṭa. Under the Rashtakuatas Lāṭa acquired the position of a 'province' (*maṇḍala*),[5] or a 'country' (*deśa*) which included *Kheṭaka maṇḍala*.[6] The capital of the former was Navasārikā (modern Navsari); of the latter Kheṭaka or Kheda. Under each of these were smaller units called *āhāra*, *bhukti*, *pathaka* and "groups of villages." A study of the place names in these records has shown that a large number of present village names in Southern and Central Gujarat —the ancient Lāṭa—can be traced back to this period. Thus to take few well-known instances :

IMPORTANT TOWNS, VILLAGES, RIVERS AND HILLS IN THANA, SURAT, BHARUCH AND KHEDA DISTRICTS FROM THE 3RD CENTURY B.C.—15TH CENTURY A.D.

Thana District

Ancient name	*Modern name*	*Earliest date*
Dahanukā (river)	Dahnu	1st century A.D.
Damanā (river)	Daman	1st century A.D.

1. It is possible that the literature of this period which is mostly Apabhramsha in Gujarat and old Marathi in Maharashtra where in a few references to Lāṭa might be found.
2. Pandya A.V., in *Vallabh Vidyanagar Research Bulletin*, Vol. I, 2, Vallabhvidyanagar, English Section, p. 11.
3. *CII*, III, pp. 79-87.
4. Cited by Radhakumud Mookerji in his article "The Hindu Conception of the Mother-Land," *IC*, Vol. 1 (1935), p. 563.
5. Sankalia, H. D. *Archaeology of Gujarat*, Appendix, pp. 34, 35, 43.
6. See Sankalia, *Archaeology of Gujarat and Historical Geography and Cultural Ethnography of Gujarat*, Poona. These lists have been brought up-to-date.

Ancient name	*Modern name*	*Earliest date*
Kanhagiri	Kanheri	1st century A.D.
Samjana	Samjan	7th century A.D.
Shrīsthana	Thana	9th century A.D.
Sopāraga or Sopāraka	Sopara	1st century A.D.
	Surat District	
Amvalasadhi	Amalsad	8th-9th century A.D.
Badarasiddhi	Borsad	8th-9th century A.D.
Chikhalapadra	Chikhlod (Songadh taluka)	2nd century A.D.
Dhāmaṇachchhā	Dhamadchha (Gandevi Peta)	8th century A.D.
Kampilyatirtha	near Katargam	8th-9th century A.D.
Kammaniya	Kamrej	
Kantaragrama	Katargam	
Kapura	Kapur (Songadh Taluka)	2nd century A.D.
Nausaripa	Navsāri (?)	2nd century A.D.
Navasarikā, Nagasarika	Navsāri	7th-8th century A.D.
Tapi	Tapi (or Tapti)	2nd century A.D.
Varadapallika	Bardoli	8th-9th century A.D.
	Bharuch District	
Ankuleśvara	Ankaleshwar	7th century A.D.
Bharukachchha	Bharuch	2nd century A.D.
Bhrigukachchha		7th century A.D.
Jambusara	Jambusar	7th century A.D.
Kapikamahasthana	Kapi	7th-8th century A.D.
Nandipuri	Nandod, near Rajpipla	7th century A.D.
Nandipuridvara	Nandurbar (now in Khandesh)	7th-8th century A.D.
	Vadodra District	
Amkottaka-84	Akota	8th-9th century A.D.
Sangamakhetaka	Sankheda	6th-8th century A.D.
Vatapadra	Vadodara	8th-9th century A.D.
	Kheda District	
Karpatavanijya	Kapadvanj (now in Ahmadabad Dist.)	8th-9th century A.D.
Khetaka	Kheda	7th century A.D.
Hilohila	Hilol (now in Ahmadabad District).	8th-9th century A.D.
Mohadavasaka	Modasa (now in Ahmadabad District).	8th-9th century A.D.

The districts of Thana, Surat, Bharuch and Kheda comprising ancient Lāṭa are populated by a number of Brahmana and Vaiśya sub-castes, *Pāṭidars* (who were formerly mainly agriculturists but have now taken to industry, business, etc.) and some aboriginal tribes such as Kolis, Mahars, Dublas and Bhils. Studies of the names of donees and other persons mentioned in inscriptions[1] of early period show that the region was being colonized or settled by Brahmanas from the north and south, owing to the patronage by the respective rulers. In the course of time, when the contact with the parent group was lost, regional groups arose, which later became sub-castes, among the Brahmanas and also other communities. In the 7th to 8th century members of the *Bhāradvāja, Dauṇḍikya, Kauṇḍinya* and *Vatsa gotras* were almost in equal numbers and predominant over all others. That of all the Vedic *Sākhās*, the *Kāṇva* (*Mādhyamdinā*) *sākhā* was professed by a majority, then came a few families of the Rigvedis. Among the *Bhāradvājas* were both *Mādhyamdina Yajurvedins* and *Kauthumiya Sāmavedins*, whereas the *Chaulis* only were Atharvavedis with the exception of three or four families which had emigrated from Girinagara (modern Junagadh), from Daśapura (Mandasor in Madhya Pradesh), and Ahichchhatra (in Uttar Pradesh), all the rest were inhabitants of Jambusara or of the country round about Bharuch.

In the next 250 years (A.D. 750-970), the *Bhāradvājas* still predominated. But whereas the earlier families had settled around, Bharuch, and belonged half to the *Kāṇva Sākhā* or the Yajurveda and half to the *Kauṭhuma* of the Sāmaveda, some of the *Bhāradvājas* had come from Karnataka or further south, a few of which were Rigvedis, and others of the *Taittīrīya Śakha.*

Though the Brahmanas from the Deccan and Karnataka were patronized, as was natural, because the rulers belonged to these parts, the one place which figures very prominently is Govattana (modern Kotna). What was Jambusara under the Gurjjaras, home of Brahmanas of several *gotras*, Govattana was under the Rashtrakutas. These two lie in continguous areas, and must have formed with Badarasiddhi (Borsad) immediately to the north and north-east of Jambusar and Kotna respectively, and Mottaka (Mota) to the south in Surat District, large colonies of Brahmanas in the heart of the most fertile regions of Central Gujarat (or Lāṭa).

In the 10th-11th centuries very interesting information has recently been available about the Thana District. Its capital at that time was Samjana. Here existed a group (*parshad*) of *Pañcha Gauḍīya* (that is *Sārasvata, Kānyākubja, Gauḍa, Maithila* and *Utkal*) Brahmanas. This perhaps explains why there are a large number of Sārasvata Brahmanas in this region (Konkan). They might have later migrated from here to Mangalore and Karnataka.

At Śrīsthana (Thana) again was a colony of Moḍha Brahmanas, who must have migrated with the rulers who were also Moḍhas in the 10th-11th centuries or earlier.

1. *Ibid.*

Then there were Parsis at Sanjan whom the inscription calls "*hamyamanāpaura*," "citizens of Hamyamana," a number of Muslims, Kannadigas and Tamilians, the personal names[1] of whom will make a very fascinating study.

However, from the point of view of ethnic origins, the most important item in these new records is the expression Koli-Mahāra *Vishaya*. It occcurs for the first time in a record of Chalukya king Jayaśraya-Mangalaraja[2], who is believed to have ruled in north Konkan contemporaneously, with his brother Avanijanaśraya Pulakeśin who ruled in South Gujarat. At this time Śaka 653, that is A.D. 731, Koli-mahāra-*Vishaya* seems to have formed a small independent unit. Later in the 9th-11th centuries it formed part of the Samyana pattana-700 or *maṇḍala*. Unfortunately neither Dr Shastri nor Dr Sircar have been able to identify this unit (though Dr. Sircar thinks that the unit might have been named after the Koli tribe), and have consequently misread the expression as *Kolima-āhāra Vishaya*. The expression is, in fact, after the tribes of Kolis and Mahāras and implies that once the territory was called after them, as they were in large or predominant numbers. Even now the one inch to one mile maps[3] show a number of Koli-Mahāra names in the Thana District.

The joint name in the inscriptions also indicate that the Kolis and Mahāras were connected. According to Enthoven[4] a sub-group of Kolis, known as Dhor Kolis, because they eat beef, or Tokre because they are "bamboo cutters," are found chiefly in north Konkan and rank with the Mahārs. So it is possible that the inscriptions refer to the habitat of these Kolis and Mahārs. Another suggsetive name is Dombalaiya,[5] who was a minister—*Mahā Thakkura*—in charge of the administration of Samyana (Sanjan) under Vijja-raṇaka. This name reminds us of Dombivali near Thana, which may have been named after the person, or the person after the place as ending -aiya might suggest.

The Chinchani epigraphs also tell us of the various temples which were constructed by the emigrating people. There was a temple of the goddess Daśamī (a form of Durgā or Pārvatī) very near(?)to a monastery (*maṭhikā*), and constructed by *Kautuka*. Near it a temple of Bhillamāladeva, also called Madhusudana, was built by the merchants from Bhillamāla in south Rajasthan. The Moḍhas, on the other hand, worshipped a goddess called Khadirāvatī, besides the image of the Sun god, called Mayūkhamālin and Trailokyachakshu, while the Arabs must have had their mosque, and the Parsis their fire-temple (or *Agiāri*) and the Mahāras and Kolis their shrines unless they worshipped the goddess mentioned above. Near Sanjan, at Śrīpura, according to a recently published

1. *Epi. Ind.*, Vol. XXXII, p. 47-48, 56-57, 64-65, 65-69, 71-72.
2. Shastri, H. S. (Ed.) Haṁyamanāpaura, *JOIB*, Vol. IX, pp, 141-47.
3. Survey of India Topographical Sheet No. $47\frac{A}{9}$ and $46\frac{D}{16}$ and $\frac{D}{12}$.
4. Enthoven, R. E., *op. cit.*, Vol. II, (Bombay 1922), p. 253.
5. *Epi. Ind.*, XXXII, p. 72.

record, there was a temple of Brahma to which a grant was made by the *Mahājana* (corporation) in the (Śaka) year 671 (A.D. 749) under the Rashtrakuta king Dantidurga.[1]

Sanjan in short had become at this period what Surat was in the 16th century or what Bombay is today—a great centre of diverse races and nationalities each following its own religion, but living (apparently) in amity and peace.

The languages in this region today are Gujarati, Marathi, Konkani and their dialects differing not only in intonation, but grammer and syntax. It is well-known that even educated people in and around Surat owing to the contact with the aboriginals Dublas, Kolis and others, make too a frequent use of the aspirant *ha* for the dental sibiliant *sa*. For instance, they would say "*Hū chhe*" (what is it ?) for "*Śu chhe* ?". And so also while addressing a superior or an elder they would address him in the singular only, without meaning any disrespect.

Now we have no means to check whether they mixed language with Gujarati, Marathi and Konkani elements, or some dialect or dialects were konwn by the name "Lari," or when the author of the *Kuvalayamālā* described the peculiarities of the language of the Lāṭas, had in view some such peculiarity described above. Rajaśekhara in his *Kāvyamimāmsā*[2] says that the Lāṭas spoke a kind of Prakrit, and instanced it as *Laṭṭabham* or *Laṭṭasam*. The instance cited do indeed contain a large number of aspirates. These also characterize the Konkani, but there they are nasalized. At present a dialect of Sindhi called 'Lari' is spoken in southern Sind (now in West Pakistan), and the region was and is still known *locally* as Lāṭa or Lara and the Hindus as Ladai. This Lari is not adequately studied linguisically. It is said to drop the aspirates, and belived to have more affinity with Kachchhi (a dialect of Kutch), and Saurashtra.[3] A study of all these dialects might indicate the nature of ancient Lari and its true provenance.

From a reference in a fifth century inscription it has been constantly argued that the people of Lāṭa were fond of silk or alternatively that the region had developed a silk weaving industry as early as this period, and that some of these weavers were worshippers of the Sun. No attempt has been made to locate this industry in the ancient Lāṭa, or the part of Lāṭa itself.

According to the record the Lāṭa district was beautiful with trees full of flowers, mountains covered with vegetation and had temples and assembly halls of gods and *vihāras*. Since the record is of the 5th century, and since at this period Lāṭa was restricted most probably to the Narmada-Mahi *doab*, or at most the Tapi-Mahi region, we should expect Bharuch or some such place as the centre of this industry. Kheṭaka

1. Mirashi, V. V., "Manor Plates. . . . . ." *IHQ*, Vol. XXXV (1959), p. 183, ff.
2. Dalal, C.D. and Pandit, R. A. Shastry (Ed.). *Kavyamimamsa*, 3rd Edition, Gaekwad's Oriental Series, No. 1, (Baroda 1934), pp. 34 and 51.
3. Jaitley, *op. cit.*, pp. 25-26.

or Kheda is not known for its weaving, but Surat and Cambay were. But the fame of the latter rests on the fine *Jari* and *Kasab* work they produced in Mughal period (16th-18th centuries). Bharuch, however, was a great producer and exporter of cotton from the earliest times, and very likely during its heyday as a great western port, it had developed this silk weaving industry.

However, the description of the region—particularly reference to hills and vegetation—reminds us of the Thana District with the Kanheri and other caves.

Vatsyana in his *Kamasutra*,[1] and the author of the *Pādatādiṭakam*[2] works of the 4th-5th century refer to certain sexual and social habits of the Lāṭa people. These details about the life of the people imply a close contact with the land or some other means of information. Śyamila, the author of the latter work, refers to the painters and their technique of painting on buildings.[3] These are very interesting and important details, but before accepting them as such, need to be correlated with the present social structure and traditions which are undergoing a very rapid change.

From what is known of Lāḍ Baniyā and Prabhus,[4] a community mostly to be found in Bombay and south Gujarat, that these are very fond of fine food, dress and decoration; particularly women of both these communities are highly artistic.

One does not know whether to connect this artistic trait in some of the present Lāṭas with the painters of Ajanta and Bagh. For it has been suggested by an art critic[5] that the frescoes in caves XVI-XVII at Ajanta, since they were executed during the Vakataka hegemony over Lāṭa, and since no less than nine generation of a feudatory of Hariseṇa, who got the cave excavated are beleived to have hailed from Gujarat (Lāṭa),[6] the credit should be given to the artists and their patrons from Lāṭa. This is all speculative thinking. Possibly there was a great artistic talent which was also responsible for producing the beautiful Akota bronzes, and the later miniature painting and fine wood work. The Hira Gate at Dabhoi near Baroda is an example of what the artists could achieve in stone provided the patronage was there. As a rule, such skill is found confined in a particular group of craftsmen, whether it be painting, sculpture or engraving.

1. Vatsayayana, *Kamasutra*, II, 3.7; 5.26.
2. Ramakrishna Kavi and Sastri, S. K. Ramanatha *Chaturbhānī* Published by D.G. Sarma, and Krishna (Patna 1922), pp. 1-48; particulary pp. 7, 15, 16, 19, 20, 21, 55, where a reference is made to a King Indravarma of Aparānta, the habits of the Laṭa people (Suraparaka, Sopara, near Bombay). Śyāmilaka further compares the Laṭas with Piśāchas, This may be in ridicule or contempt, but it may mean something if it is remembered that Lari, a dialect of Sindhi is believed to be related to the Paisāchī of the north-west India.

   An up-to-date edition with translation in Hindi and prefaced by a scholarly introduction by Drs Agrawal and Motichandra is published by Hindi Granth Ratnakar (Private) Ltd., Bombay, 1960, under the title *Śringār-Hāṭa*.
3. *Ibid.*, pp. 21-22.
4. There are three or four sub-groups. Enthoven *op. cit.*, Vol. III, p. 235-52. He however, does not refer to their artistic attainment.
5. Mehta, *op. cit.*, p. 501.
6. Jayaswal, K. P., *History of India*, (Lahore, 1933), p. 105.

And whenever required, these artists were invited by the king, or a religious group or the party concerned. So it is difficult to give credit to a particular region or a part thereof, unless there is a living tradition as in Orissa, Rajasthan or Saurashtra, for instance.

The origin of the word "Lāṭa" is thus enigmatic. How far it is foreign, and if so, connected with the early Iraqi (Mesopotamian) Larsa, etc. or the still distant places in the island of Cyprus or Latvia[1] in the Baltic, is indeed a moot point. For want of adequate evidence all these suggestions seem far-fetched. So also its derivation from the Indus or Proto-Sindhi culture.

Whatever it be, for a thousand years and more, the western coast now formed by Thana, Surat, Bharuch and Kheda Districts was being endowed with a distinct geographical, political, linguistic and cultural individuality by writers of epigraphs, literary writers, and foreign visitors. This was expressed by the one word Lāṭa, Lāṭi or Lāṭika[2].

1. Spekke, Arnolds, *History of Latvia—An outline*, (Stockholm 1957).
2. This article was originally prepared for Chas. Lasdin of Ontario, Canada, as he was interested in the possible connection between the Lāṭas and Latvia. The article is published here, as it is of much wider interest to students in India.

PRE-VEDIC TIMES TO VIJAYANAGARA : A SURVEY OF 25 YEARS' WORK IN ANCIENT INDIAN HISTORY AND ARCHAEOLOGY

This year 1942 the Bhandarkar Oriental Research Institute celebrates its silver Jubilee. These 25 years have been a period of both political and cultural advance in India. More universities and educational institutions, some specializing in research, have sprung up. The number of Indian scholars, books and journals has consequently greatly increased. It has been, therefore, thought necessary to prepare from time to time articles surveying or listing the work done in a particular subject or subjects. Actuated by this desire, even before 1917, Lüders[1] and Kielhorn[2] published lists of early Indian inscriptions. Sewell[3] gave a digest of the historical inscriptions of Southern India. Recently D.R. Bhandarkar[4] has listed the north Indian inscriptions from about 200 A.D.

Heras writing on the Aravidu dynasty of Vijayanagara contributed an exhaustive classified bibliography on the subject. Two years later (1928) appeared the *Annual Bibliography of Indian Archaeology*, covering the entire work done during the year 1926 in India and adjacent countries, whereas a similar bibliography pertaining to Indian history for the year 1927 was published in the *Journal of the Bombay Historical Society*. Since then we have '*The Bibliography of Prehistoric Indian Autiquities*' by the late Prof. H. C. Dasgupta;[5] of '*Ancient Indian Terracotta Figurines*' by C.C. Dasgupta;[6] and of '*Indian numismatics*', by C. R. Singhal.[7] It is now a practice with writers on Indian history to append a list of inscriptions and such other bibliographical literature which they have used.

Recently the India Society sponsored a scheme to review the work done by the Archaeological Survey of India. Several past and present members of the staff collaborated, revealing India's past glory.[8] Before this already individual scholars[9] had

1. 'A List of Brāhmī Inscriptions from the Earliest times to about A. D. 400', *Epi. Ind.*, X, *Appendix*, pp, 1-226.
2. 'A List of the Inscriptions of Northern India from about A.D. 400', *Epi. Ind.*, V, *Appendix*, pp. 1-96.
3. *The Historical Inscriptions of Southern India*, *Madras*, 1932.
4. 'A List of Inscriptions of Northern India written in Brāhmī and its derivative scripts', *Epi. Ind.*, XIX—XXIII.
5. *JASB*, (NS) XXVII, 1931, No. 1.
6. *JRASB*, IV, 1938, No. 2.
7. *Ibid.*
8. *Revealing India's Past.*
9. Sastri, *Dr. S. K. Iyengar Volume*, p. 143; Lüders, *ZDMG.*, VIII, pp. 1-20.

written articles reviewing the archaeological work done in the country either in a particular year or during a specific period.[1]

The present survey is an attempt in the same direction. If it seeks to cover a much wider field, it is because the groundwork was already prepared by the Kern Institute for a period of over 12 years (1926-1937). To its labours the writer is indebted.[2] Unfortunately the war has stopped this excellent work. However, wherever possible the bibliography has been brought up to date with the facilities available in Pune. But it is possible that in this single-handed effort some important omissions might have occurred.[3]

In a survey of this kind the writer would follow a geographico-chronological order, although there is some difficulty in doing so. For, excepting a few books and reports of the Archaeological Survey of India, a majority of the works on the subject were not written from the regional point of view, but from the strictly chronological or dynastic point of view. However, with a view to knowing the progress made in any particular region of India and suggesting the possible means of accelerating in the writer has tried to review the progress of studies in prehistory, protohistory and ancient Indian history from a regional point of view.

In the quarter under review Indian prehistory and proto-history received a sudden fillip by the chance discovery and subsequent systematic excavation of the mounds at Mohenjodaro. Prior to 1918 work in Indian prehistory was sporadic and undertaken by persons who were interested but not trained in the subject. To the labours of these people however, we owe our knowledge of the megalithic monuments and their contents in south India, whereas to Bruce Foote we owe our knowledge of purely prehistoric finds not only from south India but from other parts of India as well. Mitra tried to present whatever was known upto 1923 in a connected form in his *Prehistoric India*.[4] Indian prehistory, however, remained in a very unsatisfactory condition for it was not based on a systematic and scientific study of the subject. Mohenjodaro gave it a certain impetus. For the culture that it revealed could not be correlated satisfactorily either with the Vedic or the later historic-cultures of India. Certain affinities between it and the Mesopotamian finds as well as the nature of its own finds permits the inference,

1. While sending the article to the press the writer learns that the Director General of Archaeology has published a Summary of the Department's work during the last 25 years.
2. The writer would thank here Messers A. H. Dharmadikari and M. M. Patkar, for compiling a card index for him.
3. More so because after the writer accepted the invitation of the Secretary, Bhandakar Oriental Institute, to write a survey article, he had to be away on field work for a long time. This and the subsequent disruption of library facilities has prevented him from treating the subject more exhaustively, as he originally wanted to.
4. First and second editions, Calcutta, 1927,

which is generally accepted, that the Mohenjodaro or the Harappa culture belongs to the Copper or Chalcolithic Age which flourished in the Indus Valley about 2500 B.C.

Want of correlation of the Indus Culture with the known Indian cultures has necessitated the systematic unravelling of its antecedants and consequents, namely, the Stone Ages which preceded it and the Iron Age, which followed it. The work of De Terra and Paterson and their colleaguages[1] in Kashmir and the adjacent Sohan, Indus and Haro valleys of the Punjab has, for the first time put Indian prehistory on a solid foundation. They have discovered human artifacts in definitely assignable geological strata, whereas till now most of the discoveries were of surface finds. Kashmir, however, is but a part of India. Scores of other river-valleys remain to be similarly explored. Fortunately the lead given by De Terra's expedition was taken up by the Archaeological Survey and other bodies in India. The former along with the Deccan College and Post-Graduate Research Institute undertook the survey of the Sabarmati and other valleys in Gujarat, whence Bruce Foote had reported a few surface finds in 1893.

After a lapse of about 50 years, south Indian prehistoric studies have been revived by the efforts of Cammiade,[2] Richards, Krishnaswami and others. Krishnaswami[3] has taken up a systematic survey of the Palar and other rivers of Madras.

Reports have also been published of similar work in the village of Kuliana, Mayurbhanj District, Orissa.[4]

Apart from this regular river-valley surveys for the traces of Early Man in different parts of India, human artifacts have also been found otherwise. Munn discovered some along with fossil remains in the Godavari valley in the earstwhile Hyderabad State and some neoliths from Jamalpur[5], whereas Todd[6] reports Palaeolithic Industries from the Kandivli, Borivli and other suburbs of Bombay.

Dolmens and other megelithic monuments have continued to receive attention as before but now they are studied more scintifically. Their further discovery is reported from Malabar,[7] Palni Hills (Kodaikanal), Madras proper and south India,[6] Hyderabad[8]

1. *ABIA*, VII, No. 129.
1. *Studies on the Ice Age in India and Associated Human cultures*, Washington, 1939; see also De Terra, "The Siwaliks of India and Early Man in G. G. MacCirdy, *Ealy Man* and Paterson, "Geology and Early man," *Nature*, July 6, 1940, p. 12 and 13.
2. *Antiquity*, IV, 1930. p. 326.
3. Prehistoric Man Around Madras, *Indian Academy of Science*, Madras, 1938 ; and Environmental and Cultural Changes of Prehistoric Man near Madras," *J. Mad. Geogra., Association.*, Vol. XIII, pp. 58-90.
4. *Man in India*, Vol. XXI, 1941, p. 226.
5. *ABIA*, III, No. 132.
6. *JRAI*, Vol. LXIX, 1939, pp. 257-72. It is a pity that these promising sites should have been spoiled by too much quarrying and subsequent filling, as the writer found them to be, when he visited them after the publication of Tood's article.
7. *ABIA*, IV, No. 130 ; I, No. 119.
8. *Ibid*, III, No. 83 ; also Numa Laffite, *Raport... L'Inde*, Paris, 1932 and *ASIAR.*, 1930-34, p. 112 ; 1934-35 : pp. 45, 43 ; 1936-37, p. 67.

and as far north as Pune[1] in the Deccan, as well as from the highlands of Central India[2] Assam,[3] and Kashmir.[4] Unfortunately these monuments cannot be satisfactorily dated.[5] But might be possible to do so when their contents are properly excavated and examined.[6]

Equally untrustwothy as to age are the rock-paintings and engravings, more of which have been found recently from the Central Provinces[7] and Sind.[8] Their date may be anywhere from 1000 B. C. to the early centuries of the Christian era or more. Unless found with datable associated remains Indian rock-paintings as well as megaliths will not yield the desired links with the Indus Culture or with that of the Stone Ages. We may, however, expect such links from the Mysore Archaeological Department's excavations, if they are carried on an extensive scale, at Chandravalli[9] and Brahmagiri[10] or from Hyderabad Archaeological Department's work at Kondapur,[11] etc. What is required is an organised and co-ordinated scheme of exploration in every part of India, particularly in Gujarat, Kathiawar, Rajasthan and the United Provinces.

If any archaeological discovery in India has had so much wide publicity it is the discovery of Mohenjodaro. General reports about it have not only appeared several times in English in India and elsewhere, but articles on it have also appeared in many of the Indian languages—Gujarati, Marathi, Bengali, Hindi, besides foreign languages, viz. Japanese, German, French and Italian. In spite of such world-wide fame, the culture displayed by the Indus Valley has not been fully understood. For its script has not yet been deciphered to the satisfaction of all scholars. Consequently the creaters of the culture have remained an enigma. Some scholars therefore attempted to unravel its mystery by studying the material objects, and correlating them with those in India or outside; some have tried to compare it with the Vedic or Aryan, or the Dravidian culture, whereas others are busy interpreting the script itself.

The Indus script has been thought to be related to the Brahmi or to the Easter Islands or to the Hittite, Etruscan or supposed to be proto-Dravidian by Langdon,[12] Waddell[13] and Pran Nath[14] and Hevesy,[15] Hrozney,[16] Piccoli,[17] and Heras[18] respectively.

1. *BDCRI*, I, pp. 178-184.
2. *JBORS*, I, p. 222 : II, p. 485 : VI, p. 393 ; *Census of India*, I, pt. III, 1035, and Guha, 'Progress of Science in India', in the India Science Congress 25 years Survey Volume, 1938, p. 311 ; also *ASIAR*, 1930-34, p. 141.
3. *JRAI*, 52 (1922) and 56 (1926).
4. De Terra and Paterson, *op. cit.*, pp. 233-34, pl. XXIV.
5. For a general survey see Ghurye, *Man in India*, 1926, and Guha, *op. cit.*
6. *ABIA*, VII, Nos. 99, 106, 107, 110, 111-12, 129, 149.
7. *Ibid.*, X, No. 203; VII, No. 103.
8. *JRASB*, VII, 1941, No. 2 , pp. 197—232, Pls 4—12.
9. Presidential Address, Anthropology Sec. 29th Science Congress, Baroda, 1942. p. 16.
10. *Ibid.*, p. 18 ff.
11. *ABORI*, XXII, pp. 171-184.
12. Marshall, *Mohenjodaro and the Indus Civilization*, and *ABIA*, IX, No. 238.
13. *ABIA*, I, No. 222.
14. *Ibid.*, VI, No. 232 a.
15. *Ibid.*, VIII, Nos. 228-29 and IX, No. 237 ; cf. also *ABORI*, XIX, p. 122 and XX, p. 262.
16. *IHQ*, XVI, pp. 683-88.
17. *ABIA*, IX, No. 241
18. *Ibid.*, XII, No. 232 and XI, No. 284.

It is exhaustively and objectively examined and classified by Hunter[1] and to some extent by Sarton,[2] Ross[3] and others. Which of these interpretations is correct will be decided only by a bilingual inscription. Heras' hypothesis, seems to be the most methodical approach to the subject which is also supported by the correlation of the Cretan, Mesopotamian and Indus finds.

Ignorance of the Indus language has caused wide divergence of opinion as to the character of its culture and its place in Indian culture. Its discoverers—Marshall and others—thought it to be non-Aryan, having no relation with the Vedic civilization. This view was supported by Keith[4] and others. Sarup[5] and a few others think it to be Rigvedic; Chanda[6] a mixture-non-Aryan and Aryan ; while Heras,[7] from his interpretation of the seals, proto-Dravidian ; and Pran Nath,[8] Sumero-Egyptian.

A purely objective study of some items of its material culture has has led scholars to trace their affinity with Mesopotamian,[9] Egyptian,[10] Cretan and other Mediterranian Cultures, while their survivals have also been noticed in punch-marked coins, terracottas, images, etc., by Pran Nath[11] Gordon,[12] Das Gupta[13], Heras[14] and Arvamuthan.[15]

Many problems of international importance have been raised by the Indus finds. Solutions of many of these will depend upon when and how clues of the spread of this and cognate Cultures found by Vats in Kathiawar[16] and Majumdar in Sind,[17] Hargreaves Baluchistan,[18] Stein in different parts of Baluchistan[19] and Iran[20] and by a number of foreign expenditions in Iran,[21] Syria,[22] Palestine and Mesopotamia[23] are followed up. In India itself planned explorations are necessary in Gujarat, Kathiawar, Rajasthan and the Punjab. For a proper knowledge of Early Man in India, important river valleys both in the north and the south should be systematically surveyed. Then only his migrations can be correlated with the existing evidence from Kashmir, Gujarat, Bengal and Madras and from the Far East where too his traces have been found in Burma,[24] the Malay Archipelago,[25] Indo-China,[26] Siam[27] and Formosa.[28]

1. *Ibid.*, IX, No. 238.
2. *Ibid.*, V, Vo. 255.
3. *NIA*, II, pp. 524—58.
4. *ABIA*, IX No. 390.
5. *IC*, IV, pp. 149—169.
6. *ABIA*, IV, No. 329.
7. *Ibid.*, IV, Nos. 83-84.
8. *Ibid.*, VII, No. 256, XII, No. 237.
9. *Ibid.*, VII, No. 118; IV, No. 92; IX, No. 541a.
10. *Ibid.*, X, No. 536.
11. *Ibid.*, VI, No. 232.
12. *Iraq* and *JRASB*, IV, 1940, pp. 61-104.
13. *Ibid.*, No. 234; *Man*, XXXV, 104.
14. *IHQ*, XIV, pp. 245-55 etc.
15. *NIA*, IV, pp. 253-70, 294-313, 319-336,
16. *ABIA*, X, pp. 1—2.
17. *Ibid.*
18. *Ibid.*, IV, No. 121.
19. *Ibid.*, 145-46.
20. *Ibid.*, IX, Nos. 769-74.
21. *Ibid.*, IX, No. 768.
22. *Ibid.*, 763.
23. *Ibid.*, XII, No. 626, etc,
24. *Ibid.*, VI, Nos. 526, 566 ; VII, No. 584 ; XII, No. 507.
25. *Ibid.*, VII, No. 545 ; IX, Nos. 582, 669, 686, IXV, 669, 641-42,
26. *Ibid.*, VIII, No. 493.
27. *Ibid.*, VI, Nos, 547, 548 ; VIII, No. 533 ; IX, No. 613.
28. *Ibid.*, VII, 551.

The discovery of the Indus Culture has also led to the reconsideration of the question of Aryan invation of India. Was it in about 1500 B.C., as generally believed on the strength of Boghazkuei incription and the internal evidence supplied by the Vedic literature itself, or before or contemporary with the Indus culture or did it never take place ? Patil[1] sought to prove that the invasion idea was a myth which was immediately contradicted by Thomas[2] and Vaidya.[3] Further evidence in favour of the Indo-European origin and immigration into Eastern India is adduced by Keith,[4] Jackel,[5] Bhandarkar[6] and others.

While the question of Aryan invasion is still unsettled, the view is propounded that either the Dravidians or proto-Dravidians migrated to Sumer[7] or vice versa,[8] or at least there was an ethnic relationship[9] between the ancient inhabitants of Sumer, Elam and India.

India of the Vedic and post-Vedic period up to the time of the Mauryas, when the so-called historical period begins, has not yet been fully worked out, primarily owing to the unreliability of the Buddhist, Jain or Brahmanic tradition in general. When Smith wrote his *Early History of India* and later when it was re-edited in 1924, Rapson and others had published the *Cambridge Ancient Indian History* using Vedic and non-Vedic sources and Fick and Rhys David had written on certain aspects of the Buddhist and Pre-Buddhist (?) India from the Buddhist sources. But hardly any attempt was made to prepare an outline of political history from the Vedic times to the Mauryan period by collating the Vedic, Puranic, Buddhist and Jain sources, or to work out exhaustively each of these sources separately. Raychaudhuri attempted the former task in his *Political History of Ancient India* in 1923 and since then he has kept this work up to date by incorporating subsequent reasearch on the subject. Pradhan has approached the subject in his *Chronology of Ancient India* from Brahmanic sources alone. Law similarly selected certain aspects—*Kṣatriya Tribes*, *Geography of Buddhism*—of Indian History and worked them out completely from the Buddhist sources. Recently Mehta has published an exhaustive study of the Jataka literature alone,[10] unfolding the cultural history (not necessarily of the pre-Buddhist or Buddhist India as Mr. Mehta would make us believe) of a number of centuries from or before the time of Buddha up to the yet time when the Jatakas were finally codified. The Jain literature-*agamic* or later has not been systematically tackled. Such a study might not be of value yet from the point of view of political history but its value to the understanding and interpretation of Indian culture as a whole will be tremendous.

1. *ABIA*, III, No. 404 and V, No. 424 ; see also *ABORI*, XX, p. 49.
2. *Ibid.*, IV, No. 406.
3. *Ibid.*, No. 407.
4. *IHQ*, XII, pp. 1-30 ; XIV, pp. 201-223 ; XVI, pp. 423-461 ; *ABIA*, IX, No. 356.
5. *ABIA*, No. VI, 317 ; III, 431 ; VI, No. 336.
6. *Ibid.*, II, No. 353.
7. *Ibid.*, IV, No. 84.
8. *Ibid.*, IX, No. 773,
9. *Ibid.*, II, No. 123 : VI, No. 398 ; VII, No. 460 ; VIII, No. 336 ; IX, No. 773.
10. *Pre-Buddhist India*, 1941.

Besides these monographs on the pre-Mauryan history individual articles have been comparatively few. These mostly deal with kings Udayana of Kosambi,[1] Pradyota of Ujjain,[2] and Prasenajit of Kosala,[3] or the general political history of the period.[4]

Mauryan history was fairly well-known when Smith and others wrote on the evidence of inscriptions, coins, accounts of foreign writers, Puranas, etc. Subsequent research has been in the direction of :

(1) elucidating the Mauryan chronology, particularly that relating to Chandragupta, and his grandson Aśoka ;

(2) re-evaluating the expansion of the Mauryan empire under Chandragupta and Aśoka in the light of new facts ;

(3) deciding the *Dharma* of Aśoka ;

(4) search for Mauryan monuments ; and

(5) a critical study of Kautilya's *Arthaśāstra*.

Views citing further evidence or reinterpreting the old evidence have been expressed placing Chandragupta's accession in 313 B.C. or 323-24 B.C.;[5] so also about his caste.[6] One scholar[7] explains Vrishala as a Greek title Basileus and not anything meaning contemptuous as hitherto believed. This scholar, Seth, further argues that Chandra of the Mehrauli Pillar inscriuption is identical with Chandragupta Maurya, and that the Mauryan empire under him included parts of Central Asia; he himself having come from the north-west.[8] These are hypotheses. But Indubitable evidence of Bengal forming a part of the Mauryan empire and the Jaina tradition of 12 years famine in north India is afforded by the discovery of an inscription from Mahāsthāna.[9]

Studies on Aśoka have been many. Four monographs on the king himself[10] and numerous articles pertaining to his religion, etc., have appeared. Of the latter two articles relate to chronology;[11] some to his religion;[12] whether Aśoka embraced Buddhism or not (a recent author maintains that Aśoka was a Jain[13]) ; some to the explanation of certain terms in Aśokan edicts and identification of places[14]—such as Satiyaputa and other miscellaneous topics. Important, however, his the discovery of a number of new Aśokan edicts at Maski, Kopabal, Yerragudi,[15] confirming the Mauryan sway over the Deccan

1. *ABIA*, VII, No. 386 ; IX, No. 361 ; XII, No. 314.
2. *Ibid.*, V, No. 467 ; IX, No. 345 ; VII, No. 372.
3. *Ibid.*, VII, No. 351.
4. *Ibid.*, V, Nos. 369, 391.
5. *Ibid.*, VII, No. 323, 435 ; IHQ ; XI, p. 211, *IC*, II, 30 p. 557.
6. *Ibid.*, VII, No. 355, *S. K. Aiyangar Vol.* pp. 93-99.
7. *Ibid.*, XII, No. 385.
8. *NIA*, II, p. 625, *IHQ*, XIII, p. 400 ; *ABIA*. XII, No. 383.
9. *ABIA*, VIII, No. 2, 246-47 ; IX, 59-60 ; *Epi. Ind.*, XXII, p. 1.
10. *Ibid.*, III, No. 389 ; V, No. 416 ; VIII, No. 344.
11. *Ibid.*, VI, No. 295; IX, No. 327; VII, No. 332a.
12. *Ibid.*, II, No. 347 ; III, No. 256 ; IX, No. 501,
13. Shah, and Vyas, *Nag. Prach. Patr.*, XVI, pp. 1-65.
14. *ABIA*, IX, No. 499 ; No. X, 487 ; No 291 ; *S.K. Aiyangar. Vol*, p. 33.
15. *Ibid.*, VII, No. 300 ; VI, No. 285 , VIII, No. 251.

Karnataka and even further South. Mention must also be made of the linguistic study of these inscriptions by Bloch, Hulztsch, Woolner, Turner, Bhandarkar and others.[1]

Mauryan Archaeology has been enriched by the discovery of wooden palisades of Chandragupta at Patna[2]; of Mauryan level at Taxila,[3] Kosam, Sanskisa,[4] Chandravalli, etc., by the supposed discovery of Maurayn and pre-Maurayan terracottas[5] and identification of certain symbols on coins[7] as those of Chandragupta, Daśaratha and others.

Much light on the Mauryan administration and polity in general has been thrown by the many sided study of Kautilya's *Arthaśāstra* and the correlation of it with information gathered from Aśokan inscriptions. Besides several articles there are a few monographs on these subjects such as Dikshitar's *Mauryan Polity*, Ghoshal's *Hindu Revenue System* and Gopala's *Mauryan Finance* and Pran Nath's *Economic Conditions of Ancient India*.[8]

Aurel Stein's explorations between the Upper Swat and the Indus have helped considerably in following Alexander's compaign on the Indian North-west Frontier[9] whereas the site where Poros contacted him is identified as Jhelum[10] and not Jalalpur as previously thought; the rock fortress of Aornos is discovered.[11] Other scholars have written on Sangala mentioned by Alexander's historians;[12] on Antiochos,[13] on Poras[14] and the invasion in general.[15] Connected with this period are works or articles on Megasthenes and Indian Society,[16] Alexander in Indian literature, Iranians and Greek in India and so forth.[17]

In the Śunga history, the same old topics—caste, dynastic name, etc., of the Pushyamitra family—continue to be discussed.[18] Further historical data on the trade and commercial activities of the period is extracted from Patanjali.[19] Discovery of inscriptions from Ayodhya,[20] Nagari[21] (Chitod), coins[22] and identification of certain sculptures[23] as those of the Śunga age add to the existing sources of knowledge.

1. *Ibid.*, II, No. 241 ; VI, No. 246 ; I, No. 194 , IX, No. 312 ; and recently Mehendale, *BDCRI*. III. p. 225-290.
2. *Ibid* ,III, No. 124 ; and *IC*, V, p. 112.
3. *Ibid.*, II, No. 118.
4. *Ibid.*, VIII. No. 129 IX, 224.
5. *Ibid* , IX, Nos. 431, 531, 533. 538-40, 546.
6. *Ibid.*, IV. No. 405.
7. *Ibid.*, V, No. 367.
8. *Ibid.*, VII, No, 468,
9. *Ibid.*, VII. No. 496 ; VIII, 431, etc.
10. Breloer, *Alexander's Kampg gegen Poros ; ABIA*, VIII, No. 335.
11. *ABIA*, I, No. 289 (a)
12. *Ibid.*, VII, No. 482.
13. *Ibid.*, VI, No. 319.
14. *IHQ*, XVII, p. 172.
15. *Ibid.*, XVI, p, 538.
16. *ABIA*, IX, Nos. 352 and 472,
17. *Ibid.*, XI, No. 428, XII, No. 339 , X, Nos. 318, 399 and *NIA*, II, p. 639.
18. *Ibid.*, IV, Nos. 330, 333, 335., XII, No. 344, 350 and *IHQ*, XV, pp. 629-32.
19. *IC*, II; pp. 364 and 584.
20. *Epi. Ind.*, XX; p. 54, *ABIA*, II, p. 270.
21. *ABIA*, VII, No. 277 ; *Epi. Ind.*, XXII, p. 198.
22. *Ibid.*, IX, No. 537 , *IC*, V, p. 208.
23. *Ibid.*, II, No. 201 , III, No. 137 , XII, No. 140.

Kharavela, perhaps a contemporary of the Sungas, has not yet emerged from the veil of mystery. His Hathigumpha inscription continually draws the attention of scholars who have since its discovery tried to interpret it by studing its script, its language and the allusions made in it to persons and events.[1]

Nothing strikingly new has come forth for the Indo-Greek studies. Mention, however, must be made of the critical interpretation of the *Yuga Purāṇa* and the entire Indo-Greek sources by Tarn.[2] The whole picture of the episode now stands in clear relief, though at places it seems to have been overdone, particularly the section dealing with the establishment of Greek colonies in India and the section discussing the origin of the Buddha image.

The history of India up to the Mauryan period possessed a certain homogeneity and unity, though even then the far South was ruled by three or four kings. This was partly lost during the Śunga rule. With its disappearance northern India and other parts of India as well came under the domination of the Śakas, Pahlavas, and Kushanas whereas the Andhras ruled at times over a greater part of country south of the Vindhyas. Owing to these facts it becomes convenient to divide the subsequent history of India into (a) Northern and (b) Southern and sketch the progress made in their studies separately.

The Śakas and other foreigners still in a sense have remained foreign to the historians, though much work has been done outside India in recent years to throw light on their history before they came into India.

Maues and his successors who were known principally through their coins and a few inscriptions and believed to have supplanted the Indo-Greeks in the north-west are still known in their skeleton form only. Subsequent research has been little and has not added materially to our knowledge. But the study of these people and their monuments before they entered India like Huntingford's[3] 'Who were the Scythians' dealing with their name, physical characteristics and habits, religion, language and race, and Rene Grousset's[4] *'L' Iran Exterieur : son Art'* might not only enable us to understand them better but might also help us to understand the art and architecture produced in India at this period.

In India the studies have revolved round their chronology[5] and origin. [6]

The history of the Kushanas—the successors of Śakas and the Parthians has profited by the discovery of numerous inscription in Kharoshthi as well as Brahmi, but the eras mentioned in them still elude a satisfactory solution. Wijk's astronomical study and the adoption of its result by scholars like Sten Konow fail to reconcile a number of

1. *Ibid.*, II, No. 269 , III, Nos. 279-80 ; V, Nos. 253, 314, 392, 483 ; VII, 284; IX, 313 ; X, 518, and *IHQ*, XIV, pp. 459-85.
2. *Greeks in India.*
3. *ABIA*, VII, No. 731.
4. *Ibid.*, No. 686.
5. Bhandarkar, *IC*, VII, p. 133, Pai, *ABIA*, V, No. 344, VIII, No. 303.
6. Know, *op. cit.*, II, p. 189, *ABIA*, XII, No. 337 , *IHQ*, XIV, p. 137.

the other synchronisms. Consequently the authorship of Śaka and Vikrama eras and the chronology of the Kushanas remain disputed. Four main views hold the field. According to the first school of thought Kanishka started the era on his accession in 128/129 A. D.[1] Bachchofer, Jayaswal and others[2] think that his accession took place in 73 A. D., whence started the Śaka era. The third view attributes the foundation of this era to Vima Kadphises,[3] whereas the fourth attributes it to the Kuntala Sātakarni Sātavāhana.[4] In opposition to all these we have the view that Kushanas used the Vikrama era.[5]

Equally prolific as the find of coins both of the Early and Late Kushanas. Those of the latter have been found in the Manbhum District, showing the existence of the local Scythians in the area as late as the 6th-7th centuries A.D.[6]

The art of the period has drawn the attention of scholars in India[7] and outside,[8] whereas a few new sculptures of the period have been reported from Goa[9] and Kathiawar.[10] Among the general works should be mentioned La Vallee Poussin's *Dynasties et Histoire de L' Inde depuis Kaniska*, etc.,[11] Levi's '*Kaniṣka*' *et Sātavāhana*'[12] and Warmington's and Sarasin's[13] studies of the commerce between India and Rome, and *Burrow's Language of the Kharoshthi Documents*[14] and several articles, dealing with topics like St. Thomas and a Kushan King[15] and Economic guilds.[16] A few articles open afresh the question of the relationship between the Western Kshatrapas and the Kushanas.[17]

Puranas found a champion in Pargiter who tried to elucidate from them the political history. They have since been utilised cautiously by Raychaudhuri, Smith and others, while much credence has been placed in them by Jayaswal and Bose to unveil the hitherto unknown or doubtful points in the post-Mauryan political history of India.[18] The former particularly sought to light up the so-called 'Dark Period' by bringing to our notice the Bhārśivas and the strength or importance of the Vakatakas ; whereas Bose gives us a reconstruction of the Andhra chronology.[19] Both these interpretations, remarkable for their originality of outlook, have been regarded as far-fetched and not sober history.[20] Two other studies attempt at fixing, according to the Puranic contents,

1. *ABIA*, I, No. 238, VIII, No. 303, IV, No. 304.
2. *Ibid.*, IV, No. 299, V, No. 146, XII, No. 312, and *IC*, VII, p. 457 and 490.
3. *Ibid.*, III, No. 332.
4. *Ibid.*, X, No. 357.
5. *Ibid.*, X, No. 342.
6. *Ibid.*, XII, No. 423.
7. *Ibid.*, II, No. 168, X, No. 161 a, 208, XI, 166.
8. *Ibid.*, VIII, Nos. 608, 673, XII, No. 180.
9. *Ibid.*, V, No. 180.
10. *JRAS*, 1938.
11. *ABIA*, XII, No. 394 a.
12. *Ibid.*, XI, No. 427.
13. *Ibid.*, VII, No. 440.
14. *Ibid.*, XII, No. 581.
15. *Ibid.*, VII, No. 389, IX, No. 360.
16. *IC*, VI, pp. 421-21.
17. *ABIA*, V, No. 349., XII, No. 396.
18. Jayaswal, K. P. *History of India.*
19. *JRASB*, V, 1939, pp. 1-131.
20. *ABIA*, XII, No. 336. 368, and *BDCRI*, II, pp. 212.-14.

synchronisms on certain topics as religious customs and rites in all the Puranas,[1] or between the Puranas and Gupta inscriptions.[2]

The history of the Guptas, who suddenly appear after the 'Dark Period,' was known in some of its essential outlines mainly based on its own archaeological sources. In the last 25 years, not only fresh archaeological sources—inscriptions, coins and monuments—have been discovered, but a few literary sources have also been discovered which are interpreted to throw light on the origin of the Gupta rule in Magadha, as well as on certain succession within the dynasty. According the Jayaswal and others[3] the drama *Kaumudi Mahotsava* tells us how Chandasena (Chandragupta I) supplanted the ruling Varman (Maukhari ?) dynasty at Pataliputra and become master of Magadha.

This view is not accepted by all. But there is no doubt that some Maukharis were a force in the Yamuna valley in the 2nd-3rd centuries A.D., as attested by the *Yupa* inscriptions found by Altekar.[4]

Similarly extracts from the drama *Devi Chandraguptam* are supposed to refer to a king Ramagupta, who preceded Chandragupta II.[5]

Among the few new inscriptions mention must be made of the Mathura Incription of Chandragupta II[6] which is not only the earliest record of the king, but is also important for the antiquity of the Lakulīśa cult. Another equally inportant inscription is the record of Narendravarman, being the second earliest inscription in the Vikrama era.[7]

The coins present a few rare types. Distinct addition to Gupta monuments was made by Banerji's discovery of a temple and other sculptures at Bhumara and elsewhere in its vicinity,[8] Jayaswal's identification of certain sculptures from the same area as Gupta-Vakataka,[9] and by the recent chance digging up of Gupta floor-levels and terracottas from Rajghat and Banares.

The rest of the work in Gupta history consists of interpretation of the existing material. General works like Banerji's *The Age of the Imperial Guptas*,[10] Jayaswal's *History of India*,[11] Iyengar's *Studies in Gupta History*,[12] Codrington's *Ancient India*,[13] Basak's *The History of North-Eastern India*,[14] Saletore's *Social Life During the Gupta*

1. Hazra, *Puranic Records on Hindu Rites and Customs*, Dacca, 1940.
2. Patil, Gupta Inscriptions and Puranic Traditions', *BDCRI*, II, p. 148 and Appendix.
3. *ABIA*, IV, No. 356, V, No. 394, X, No. 471, VII, No. 414.
4. *Ibid.*, XII, 244.
5. *Ibid.*, III, No. 340, IV, No. 313., VII, Nos. 353, 381, IX, No. 408, XII, No. 353; *IC*, IV, p. 216, V, pp. 328 and 443.
6. *Ibid.*, VIII, No. 245, XII, No. 262.
7. The writer had occasion to see this inscription when it was being purchased for the Prince of Wales Museum, Bombay.
8. *ABIA*, I, No. 100.
9. *Ibid.*, III, No. 199, V, No. 185, VII, No. 211, VIII, No. 146.
10. *Ibid.*, VIII, No. 320.
11. *Ibid.*, II, No. 320.
12. *Ibid.*, II, No. 320.
13. *Ibid.*, IV, No. 100 a, see also S.K. Saraswati, *JISOA*, VIII, pp. 46-58.
14. *Ibid*, No. 370.

Period treat, besides political history, several other topics as art, architecture, administration and literature.

A majority of individual studies pertain to the discussions of Samudragupta's conquest and identification of countries and peoples occurring theirein.[1] A few articles are devoted to other Gupta kings : Chandragupta II,[2] and Baladitya[3] while a number of articles deal with King Chandra of the Mehrauli inscription,[4] and the Gupta era. Views have been expressed that the Gupta era is identical with the Vikrama era of 57 B. C.,[5] or that its initial year is 272-273 A. D.[6] while others uphold the old view of Fleet.[7] A couple of articles emphasize thc religious toleration during the Gupta period.[8]

A reference to the Vakatakas has already been made before. Their history on which hardly a line is found in works of the first quarter of this century has been brought into greater relief by the efforts of several scholars from different sources. Before Jayaswal with his interpretation of Puranic and inscriptional references claimed a proud place for them in early Indian history scholars[9] had already begun to take interest in them and drawn attention to their high family relations. Jayaswal's theories of Vakataka sovereignty,[10] etc., came as a bomb-shell and were immediately opposed by some scholars.[11] The Vakataka chronology, capital, etc., have continued to be discussed.[12]

The Vakatakas have not profited from interpretation alone. A number of new inscriptions[13] of the dynasty have been found whereas Wellsted[14] and Jayaswal[15] have discovered a few monuments.

North Indian history after the disruption of the Gupta empire on the death of Skandagupta, up to the rise of Harsha, that is from *c.* 480 A. D. to *c.* 600 A. D., for a period of about 120 years, is still in a nebulous state. We knew of the Huna invasion under Mihirakula, of the meteoric rise of Yaśovardhana, of the quarrels of the Later Guptas, Maukharis and the Vardhanas and the establishment of the Valabhī kingdom in

1. *Ibid.*, VII, Nos. 339, 427, 483, 485, 528, IX, No. 500, VIII, No. 367, IX, Nos. 346, 466, II, No. 344, III, No. 370, XII, Nos. 335, 427, 429.
2. *Ibid.*, VII, No. 380, IX, No. 409: *NIA*, II, p. 685.
3. *Ibid.*, II, No. 348.
4. *Ibid.*, III, No. 245, XII, Nos. 251—52, 301, *NIA*, I, p. 188., *IC*, V, p. 206.
5. *Ibid.*, VII, No, 328.
6. *Ibid.*, No. 330.
7. *Ibid.*, XII. No. 324, XI, 264; *NIA*, III, p. 419; see also *IC*, V, p. 114 and 335.
8. *Ibid.*, XII, No, 352, 364 and *IHQ*, XV, pp. 1—12.
9. *Ibid.*, I, No. 244, 247, 251, 254, 260 ; II, No. 352; III, No. 337.
10. *History of India*, Lahore, 1933; also *ABIA*, VIII, No. 355.
11. *ABIA*, X, Nos. 410, 411, IX, No. 470.
12. *Ibid.*, X, Nos. 345; XI, 362a : 10th *AIOCR*, p. 455, and *JNSI.*, II, p. 92.
13. *Ibid.*, II, Nos, 246, 284 ; III. Nos. 246, 274, XI, Nos. 328, 330; XII, Nos. 281, 282, *NIA*, II, pp. 177, 721 ; *IHQ*, XVI, 182.
14. *Ibid.*, IX, Nos. 486, 492.
15. *Ibid.*, VIII, No. 156.

Surashtra during this interregnum. This state has not materially changed. For not much material has come forth which could enable scholars to define things more precisely. No doubt a few more inscriptions of the Later Guptas have been found; the *Manjauśrīmulakalpa*, a contemporary Buddhist literary source is studied and an inscription of Yaśovarmadeva discovered. But these do not help us much. The research has therefore tended towards the clarification of the existing material. Banerji has discussed the question how far they were kings of Malwa and of Magadha and Raychaudhury examined both these new studies accepting partly the conclusions of Banerji.[1] The Maukhari history has been clearly stated by Pires and Tripathi;[2] whereas others have discussed problems of their succession, origin and survival.[3]

Two monographs have been written on Harsha;[4] individual articles have discussed the extent of his empire : some hold that it embraced a greater part of northern India, others refute such a claim, while the third view has adduced epigraphical evidence to show that Harsha conquered the Pallava Mahendravarman.[5] Śāśānka, Harsha's senior contemporary, has also received some attention from schorlars.[6] Harsha's relation with Christianity has also been discussed,[7] and so also certain other problems of his reign.[8] A reference to Harsha's seal has been traced in the *Harshacharita*,[9] whereas his seal has been found at Nalanda,[10] proving his contact with this seat of learning.

Hirananda Sastri, the editor of the Nalanda Stone Inscription of Yaśovarmadeva,[11] identified this king with Yasovardhana, but this has raised a storm of criticism from some scholars.[12] Hence the value of this record for political history is uncertain.

The Huna invasion has been discussed by Heras and others.[13] Numerous additional grants of the Maitrakas of Valabhī have been published, of which only one—that of Khara-graha I[14] adds to our knowledge, as no other grant of this member of the dynasty was previously known. Our knowledge of other details political, social etc.,[15] of the dynasty, however, remains where it was 25 years ago. The only clarification being the nature and strength of Buddhism at Valabhī. The history of western half of Kathiawar is furnished for the first time by the discovery of six plates of the Jethvas or Saindhavas of Ghumli.[16]

After Harsha begins the so called Early Medieval or Early Rajput Period of north India. Smith[17] gave only the base outline of this period, and that too mentioning

1. *Ibid.*, III, No. 344 ;IV, Nos. 369, 388 also *IC*, V, p. 425.
2. *Ibid.*, IX, Nos. 425. 475 respectively.
3. *Ibid.*, XI, No. 367; X Nos. 474, 479 and *NIA*, II, p. 354 respectively.
4. *Ibid.*, Nos. 268, 272.
5. *Ibid.*, VII, No. 502: IV, No. 365: I, No. 284 respectively.
6. *Ibid.*, VII, Nos. 342, 352; VIII, No. 405; IX, No. 338, 412.
7. *Ibid.*, III, No. 423.
8. *Ibid.*, III, Nos. 339, 354a.
9. *Ibid.*, V, No. 390.
10. *Ibid.*, VIII, No, 290.
11. *Ibid.*, VI, No. 280.
12. *Ibid.*, VI, Nos. 245, 260 ; VII, 289 ; and also VII, Nos, 274, 195.
13. *Ibid.*, X, No. 480; *NIA*, IV, p. 36.
14. *Ibid.*, XI, No. 313.
15. *Ibid*,, XI. No. 179; and Sankalia, *Buddha Prabhā*, April 1939, p. 1127 and *IHQ*, *XVI*, pp, 816-818.
16. *ASIAR*, 1936-37, p. 102, and *Epi. Ind.*, Vol. XXVI.
17. Smith, V.A., *Early History of India*, 4 edn. pp. 374ff.

a few important dynasties. Ray[1] has now told us its political and dynastic history based mainly on the incriptions of the several dynasties, in fuller details, while other scholars have tried to give a fairly exhaustive cultural history of the Paramaras, Gurjara Pratiharas, Palas and others.

Of all the early medieval kingdoms perhaps the first to rise in northern India was the Gurjara-Pratihara dynasty.

Since the days of Hoernle and Smith several scholars have written about it discussing the questions of its origin,[2] early capitals,[3] relations with the Arabs, later chronology,[4] the extent of its empire[5] and identification of some of its rulers.[6]

The Palas, the eastern contemporaries of the Gurjara Pratiharas, have been studied from a wider angle.[7] The excavations at Nalanda in Bihar and at Paharpur in Bengal, and finds at Kurkihar and other places in both these provinces have not only added archaeological material for the study of the material culture of the period and the country, but new inscriptions have been found which throw light on the political and cultural connections of Bengal and of Further India. Both the inscriptions and sculptures are intensively studied. The former have been edited in a separate volume;[9] the latter have been examined and correlated with similar sculptures from India and Java by several scholars.[9] Besides these studies, the old unsolved problems of chronology,[10] extent of the Pala empire,[11] etc., have also received considerable attention. The Pala period has also gained considerably by the numerous publications on Tantrism which had developed in Bihar and Bengal under the kings of these dynasties.

The studies in the Senas, the successor of the Palas, have been carried on similar lines. Here too the controversial points are the foundation of the Lakshmanasena era,[12] Sena chronology,[13] the location of their capital,[13] and the origin of the Senas and Varmans.[15] Contemporary or little later literature has also greatly elucidated the Sena history.[16] The ancient geography of Bengal has been clarified by a grant of Lakshmasena.[17]

Since 1924 when Smith's Fourth Edition of the *Early History of India* was published a number of incriptions of other medieval dynasties—Paramaras, Haihayas, Chandelas,

1. *Dynastic History of Northern India*, Vols. I-II.
2. *ABIA*, III, No. 365; VI, No. 425; IX, Nos. 368, 370, 403, 452; XII, No. 379, Nos. X, Nos. 392, 393, 400,
3. *Ibid*,, VI, Nos.343, 466a.
4. *Ibid.*, VI, No. 379; *IHQ*, XVI, p. 813.
5. *Ibid.*, III, No. 336,
6. *Ibid.*, II, No. 319; III, Nos. 331.
7. *Ibid.*, VII, No. 446; *IHQ*, XV, p. 595.
8. Mujumdar, *Inscriptions of Bengal*, Vols. I-III.
9. *ABIA*, III, No. 105; V, No. 189; Kempers, *op. cit.*, pp. 151-178; *The Bronzes of Nālandā and Hindu Javanese Art* and *ABIA*, XII, No. 378.
10. *Ibid.*, VI, Nos. 342, 438; VII, No. 261; IV, No. 302, V. 323; VIII, No. 339; *IC*, pp. 113 and pp. 203-220.
11. *Ibid.*, X, No. 373; No. XI, 455.
12. *Ibid.*, IX, No. 315.
13. *Ibid.*, No. 322; VII, No. 326; IX, No. 317; XII, No. 313; and *IC*, IV, 227.
14. *Ibid.*, XI No. 390; X, 489.
15. *Ibid.*, XI, No. 364; IHQ, XIII, 158, IC, VI, pp. 53-60 and 467-70.
16. *Ibid.*, V, No. 468; IX. No. 362.
17. *Ibid* X, No. 267.

Gahadvalas, Chalukyas (Solankis), Chahamanas, Guhilots, and others have been published. These have been listed by Bhandarkar. But so far no comprehensive history correlating the epigraphical, literary, archaeological and other material of any of these dynasty has been written. After Ray's[1] detailed political outline of the Paramara dynasties of Malwa and Rajasthan, Ganguly's[2] is the only work on the subject. This is complete as far as it goes, but it fails to correlate the archaeological material.

Likewise the writer's work,[3] while it uses the archaeological sources has not exhausted all the literary, and folklore sources for the political and cultural history of the Chalukyas of Gujarat. Within recent years the most important discovery is the find of a copper plate of the Prince Chamunda.[4] Not only it is a distinct gain to Chalukyan political history, but its Jain method of writing, so different from the hitherto published inscriptions of the dynasty, and the mention of the Gupta era as being equivalent to that of the Vikrama, raise important problems in Gujarat epigrapay and Indian eras respectively. So also the work of the Baroda archaeological Survey. Systematic listing of monuments, taluka by taluka, is revealing, if not always new monuments, the wide extent of the different types of Chalukya monuments and the various cults flourishing within the empire.

In Haihaya (Chedi or Kalachchuri) history, the most exhaustive account is that of Banerji,[5] where the author has discussed a number of new inscriptions and monuments discovered by him. Besides this there are a few articles dealing with the history of the dynasty[6].

The Gahadvalas of Kanauj, besides being discussed by Ray, have received a more detailed treatment from Tripathi,[7] whereas a few other scholars[8] have also sketched their history.

Ray's seems to be the only detailed account of the Chandelas (Chandrātreyas) of Jejakabhukti, after Smith. Its sculpture, however has drawn considerable attention from students of art.[8]

The work on the Chauhan (Chahamana) history is also not much. A few articles pertain to the chronological study of the dynasty[9] while only one pertains to its cultural aspect[10].

The Guhilots of Mewar have also not attracted many scholars.[12] The one interesting topic in their history is their alleged connexion with the rulers of Valabhi.[13]

1. *Dynastic History of Northern India.*
2. *History of the Paramara Dynasty*, 1933
3. *The Archaeology of Gujarat*, 1941.
4. *BV (Hindi)*, 1940-41,
5. *The Haihayas of Tripuri and their monuments*, MASI, No. 23, 1931; *ABIA*, VII, No 101.
6. *ABIA*, II, No. 351; III, No. 374: V, No. 412; VI, No. 440; XII, No. 349; *IHQ*, XVII, p.117.
7. *History of Kanauj.*,
8. *ABIA*, IV, No. 404; VIII, No. 259; XI, No. 413.
9. *JRAS*, 1940.
10. *ABIA*, V, No. 378; VIII, Nos. 344, 381; *IHQ*, IV, p. 844; XVI, pp. 567, and 738.
11. *IHQ*, XV, p. 622
12. *ABIA*, XII, No. 332
13. *Ibid.*, XI, No. 337.

The Andhras may be said to begin, in our present state of knowledge, the independent history of southern India, that is, country south of the Vindhyas. For though they are supposed to have supplanted the Kanva dynasty in northern India, and though coins and a few inscriptions bearing Andhra-Satavahana names are found from Central India, all available evidence goes to show that it was the present Andhra *Desa* and the Deccan which were directly one time or another under the Andhras. Varied sources—Puranas, inscriptions, monuments and coins, foreign and Indian classical literature existed and were known and used 25 years ago to elucidate their history. But inspite of such wealth of material, the problems, like their caste and chronology, their relations with the wastern Kshatrapas and Kshaharatas, have not been satisfactorily solved. It is these and other—identification of places mentioned in Satavahana inscriptions which have been tackled and yet left as they were for want of conclusive evidence, Of course, to these questions of caste or name,[1] chronology,[2] Śaka-Satavahana relation,[3] gegraphy,[4] etc., new orientation is sought by a more sympathetic but at times uncritical study of the Puranas.[5] There are two comprehensive restatement of the entire subject, studying in great details some problems, by Subramanian[6] and Gopalachari.[7] While these studies have not led to any startling results, data for the Andhra material culture has been provided by excavations at Nagarjunakonda, Chandravalli, Brahmagiri Paithan and Kondapur.[8] Numerous finds have also been made of Andhra coins,[9] among which a unique coin of Apilika[10] deserves notice. The old and newly-found sculptures[11] as well as inscriptions[12] from Amaravati, Nagarjunakonda and other places within the Andhra empire have been subjected to critical study to throw light on all the various aspects of the culture of the period.

Of late successors of the Andhras or Satavahanas have drawn the attention they deserve. For unless their political and cultural history is properly laid bare we cannot appreciate that of their successors-the Kadambas, Chalukyas and Pallavas. We have now in addition to Sircar's outline[13] separate studies of the Abhiras,[14] Vishnukundins,[15] and the Sālankāyanas[16] based on new inscriptions.

1. *Ibid.*, V, No. 462; X, 401; *IHQ*, XVI, p. 560; *IC*, V, p. 17.
2. *ABIA*, III, No. 434, IV, No. 427, V. Nos. 440, 493; IX, No. 467.
3. *Ibid.*, I, No. 283; III, No. 342; V, Nos. 364, 393; VI, Nos. 339, 363; VII, Nos. 382. 447.
4. *Ibid.*, I, Nos. 176, 255, 294; III, No. 444; XI, No. 452.
5. Bose, Reconstruction of the Andhra Chronology, *JRASB*, 1939.
6. *ABIA*, VII, No. 167.
7. *Early History of the Andhra Country*, Madras, 1941.
8. *ABORI*, XXII, 1941, pp. 171-185.
9. *ABIA*, II, No. 430; V, Nos, 508, 513, IX, Nos. 535, 549, 533, and Mirashi, *JNSI*, II, 1940, pp. 83-94.
10. *ABIA*, No. 433.
11. *ABIA*, III, Nos. 144, 167; V, Nos. 156, 174, 192, 397; IX, Nos. 225, 226, VIII, Nos. 142, 207 and *BDCRI*. Vol. II (1940-41), pp. 50-118; 263-299.
12. *Ibid.*, VIII, 301; IX, No. 257, and *B. DCRI*; Vol. III, 1942, pp. 349-391,
13. *Successors of the Satavahnas in the Eastern Deccan*, 1935.
14. *ABIA*, X, No. 483.
15. *Ibid.*, V, No. 305; IX, No. 483; X, Nos. 356, 358, 475, 484; VI, No. 276; VIII, No. 417; XII, Nos. 297, 366.
16. *Ibid.*, V, No. 306, X, No. 355, VIII, No. 295, IX, No. 432.

Kadambas, one of the successors of the Satavahanas in Karnataka have been brought into prominence which has long eluded them. Whereas they were barely heard of previously, an entire monograph based on fresh discoveries of inscriptions and monuments and study of the old material now exists, owing to efforts of Heras[1] and Moraes.[2] A few other scholars are also interested in their study.[3] Among the discovery of inscriptions[4] published since Moraes' comprehensive work, the most important is that of Mayuraśrama found by the Mysore Archaeological Department.

Centribution to our knowledge of the political history of the Western Chalukyas was slight inspite of new inscriptions[5] till last year when an inscription of Pulakeśin I was discovered at Badami[2]. This definitely proves that the dynasty was in possession of Badāmi and considerable part of Karnataka before Mangaleśa. Welcome likewise, was the discovery of paintings[3] in these caves and publication of monographs dealing with sculptures[7] and temples[8] of the dynasty. Other studies are few and relate mainly to Pulakesin II and Harsha[9].

Interest in the Rashturaktas, who dethroned the Chalukyas in the Deccan and Karnataka, has also been evinced. Altekar[10] has put together all the available material on them except their monuments ; other aspects—their ancestry,[11] etc., have also been discussed by scholars. But besides, this the main addition to the history of the period is the find of new inscriptions[12] the most important of which are the Sanjan Plates of Amoghavarsha, and the Surat Plates of Karkkaraja Suvarnavarsha. For the former is the first genuine record of Amoghavarsha and takes back the antiquity of Sanjan to the 9th century ; while the latter is the first document informing us of the Jain temple at Navsāri (Nāgasārikā.)

Karnataka once again passed into the hands of the descendants of the Chalukyas of Kalyani. Owing to the efforts of the Archaeological Survey we now know something about their monuments ; a few more inscriptions have also been found[13] but their political as well cultural history yet remains to be thoroughly explored, the interest so far shown being in certain political questions only[14].

1. *Ibid.*, IV, No. 124.
2. *Ibid.*, VI, No. 389.
3. Ibid., No. 422; VIII, Nos. 308, 341, VII, No. 416, IX, No. 318; Nos. 354, 365. XII, No. 304, *IC*. IV, p. 315, 115 V, p. 115.
4. *Ibid.*, VI, No. 281, *NIA*, IV, pp. 198 and 181.
5. *Ibid.*, I, Nos. 195, 47; III, Nos. 254, 258, 315, IX, Nos. 297,—295, 319,
6. *ABIA*. XI, No. 231, (*JISOA.*, IV, pp. 57-61).
7. Banerji, *Bas reliefs at Badami*, 1928, and *ABIA*, IV, No. 157, VIII, No. 136.
8. Cousens, *Chalukyan Architecture*, Vol. 1926.
9. *ABIA*, VI, No. 368; VII, Nos. 336, 439; No. X, 473; *IC*, VI, p. 448.
10. *Ibid.*, IX, No. 334.
11. *Ibid.*, IX, Nos. 359. 454; XII, No. 397.
12. *Ibid.*, I, Nos. 182, 191, 256, II, No.230 IV, No. 281, VI, Nos. 274, 248, 257, 266, 298, 306, 325, 507; IX, Nos. 285, 289, XII, Nos. 260, 283
13. *Ibid.*, I, No. 169 II, No.283, III, Nos. 286, 292, IV, Nos, 243, 244, 265, 278, V, No. 312, XI, No. 351, XII, Nos. 258-59, 2JI, 291,
14. *Ibid.*, VIII, Nos. 371, 376, 442, IX, No. 343, XII, Nos. 355, 356 *IHQ*, XIV, p. 613, XVII, p. 11; *IC*, IV, p. 43.

In the Eastern Deccan ruled the Eastern Chalukyas, Gangas and other minor dynasties. Of these, outline history of the Chalukyas is sketched by Ganguly[1] whereas a few other scholars have touched the questions of chronology.[2] More inscriptions have also been published,[3] whereas there is mention of the coins of Vishnuvardhana[4].

As of the, Chalukyas, so also of the Gangas there were two dynasties; the Eastern and the Western. On the latter we now have a small monograph by Rao.[5] He has also written on their architecture.[6] A few articles discuss their chronololy, origin,[7] marriage relations and geograpy.[8]

Of the Eastern Gangas a number of inscriptions have been published. Their history is narrated briefly by Rao.[9] But the most hotly discussed point is the initial date of the Ganga era.[10] After re-examining all the views as well as his own previous views Subba Rao has fixed it at 509 A. D.[11]

Since Fleet and Bhandarkar wrote much material has been gathered for the history of the Silaharas, Yadavas, Kakatiyas and the Hoysalas who between them ruled over parts of the Konkan, Deccan and Karnataka, from the 11th to the 14th century. This material is mostly in the form of inscriptions and monuments. The Hyderabad Archaeological Department has recovered Kakatiya monuments at Warangal, Palampet and other places as well as puplished their inscriptions, whereas the Mysore Archaeological Department has brought to light the monuments and inscriptions of the Hoysalas. Individual efforts in elucidating the history of these dynasties are not wanting, though there is not much[12] that can be said about them. The Kakatiyas in this respect are better studied than the rest. Besides the publication of their inscription[13] and short articles dealing with their chronology and political history,[14] scholars have tried to throw light on them from Tamil[15] and Sanskrit literature[16] and from the accounts of foreign travellers[17] and coins[18].

1. *The Eastern Chalukyas*, 1937.
2. *ABIA*, Nos. 350, 375, XII, No. 323.
3. *Ibid.*, III, Nos. 289, 300, 314, IV, No. 280, V, Nos. 309, 310, XI, No. 343, IX, No. 299, XII, No. 288,
4. *Ibid.*, III, Nc. 451.
5. *Ibid.*, X, No. 451; *The Gangās of Talkad.*
6. *Ibid.*, IX, No. 179, X, No. 182.
7. *Ibid.*, VII, No. 331, IX, No. 319, XII, No. 319. XI, No. 379.
8. *Ibid.*, III, No. 395 and 433 respectively.
9. *Ibid.*, VI, No. 421; VII, No, 424; VIII, No. 396; XII, N. 370.
10. *Ibid.*; VI, Nos. 297, 300; VII, No. 325; IX, Nos. 321-22; XII, No. 316.
11. *Tenth All India Oriental Conference, Proceedings and Transactions*, 1940, p.477.
12. *IC*, V, p. 17.
13. *ABIA*, II, No. 285; V, Nos. 285, 298; VII, No. 308; VIII, No. 286.
14. *Ibid*, VI, No. 417; VII, No. 421; IV, No. 382; VI, No. 418; VIII, No. 393; XI, Nos. 405, 485 and 10th *AIOCR*, p. 423.
15. *Ibid*, VII, No. 358.
16. *Ibid.*, XII, No. 363.
17. *Ibid*, IX, No. 458.
18. *Ibid.*, VII, No. 510,

The Yadava-Śilahara history is being systematically studied. So far the main addition to Fleet-Bhandarkar's political outline is the publication of their inscriptions[1] and monuments.[2]

Immense strides have been made in the study of purely south Indian dynasties, especially the Pallava. Though the chronological gap between the earlier and later Pallava dynasties is not yet satisfactorily filled, in spite of some very systematic attempts to do so, as also the question of Pallava origins; still we have now a number monographs dealing with several aspects of their political and cultural history. Early Pallavas,[3] their origin[4] their relation with the Cholas,[5] their connection with the later Pallavas,[6] their Naga affinities[7] and their wars with the Chalukyas[8] have been discussed exhaustively by several scholars. Gopalan[9] dealt with their general history, while recently Minakshi wrote on their social and cultural history, and Chhabra[10] on the cultural relation between south India and Farther India during the Pallava rule. Śaiva and Vaishnava saints of the period have also received attention.[11] Pallava monuments have also been widely studied. Besides general articles on the Mahabalipuram rock-temples[12] there are articles discussing particular panels-usually that which show a person practising penance[13] or the royal statues.[14] Monographs[15] describe the Pallava architecture of all the three periods, while recently the hitherto unidentified sdulptures in the Rajasimha temple, Kanchi, have been identified by Minakshi.[16] Important too is the discovery of Pallava paintings[17] as well as of a few new inscriptions.[18]

The Cholas is another such dynasty about which new discoveries of inscriptions, coins, monuments, and paintings coupled with a critical study of these as literary sources have thrown immense light. The political, administrative, economic, social and other aspects of cultural life of south India from about 800 A.D. to 120. A.D. have been pictured before us about which we know very little 25 years ago. More colour is added to this picture from archaeological work[19] in Farther India, Ceylon, Indian

1. Yadava: *ABIA*, II, Nos. 235, 236, 250; III, Nos. 250, 252, 261; IV, No. 242, VIII, Nos. 287, 293, *Epi. Ind.*, XXIII. No. 43.
   Silahara: *ABIA*, III, Nos. 257, 269; *Epi. Ind.*, XXIII, No. 44.
2. Cousens, *Mediaeval Temples of the Dakhan*, and *BDCRI.*, I, pp. 169-177 and II, pp. 218-225.
3. *ABIA*, I, No, 235, IX, No. 384, X, No. 472, IX, No. 325.
4. *Ibid.*, V. No. 442, XI, 420.
5. *Ibid.*, VII, No.419.
6. *Ibid.*, VI, No. 356, VII, No. 45, VIII, No. 380, IX, No. 421, X, No. 443.
7. *Ibid.*, II, No. 387
8. *Ibid.*, VIII, No. 346, IX, No. 383, XI, No. 479.
9. *Ibid.*, III, No. 263.
10. *Ibid.*, IX, No. 668.
11. *Ibid.*, II, Nos, 306, 311, 312, 316,
12. *Ibid.*, III, No. 81, 108, 146, IV, Nos. 80, VII, Nos. 206, 208.
13. *Ibid.*, VIII, Nos. 246, 248; IX, No. 207, and I, Nos. 111, 112; VIII, No. 166.
14. *Ibid.*, I, No. 129; IX, No. 223, and II, No. 139, III, No. 175; V, No. 164,
15. Longhurst, *Pallava Architecture*, MASI, Nos. 17, 33, 40.
16. MASI, No. 63 (1941).
17. *ABIA*, IX, No. 207.
18. *Ibid.*, III, No. 299; IX, No. 296; XI, 292,
19. This has been omitted from this sketch survey.

Archipelago, and French Indo-China. Works of Sastri[1] exhaustively treat of the entire Chola period, whereas a number of scholars have discussed individual kings like Kullottunga[2] Rajadhiraja II[3] Chola invasion of Bengal[4] the struggle with the Śailandras.[5] Economic conditions have been discussed by Sastri,[6] Appadorai and Govindaswami.

Numerous Chola inscriptions have been published while a number of articles deal with the discovery of new Chola temples[7] bronze and stone images[8] and frescoes[9] and coins.[10] The discovery of temples and frescoes in the former Pudukkottai State enable us to study the evolution of the medieval south Indian temple from the Pallava temples of the earlier period; from the frescoes the extension of the Ajanta art.

The Pandyas and Cheras, other ancient kingdoms of south India, have not been so extensively studied. Sastri wrote a small monograph[11] on the former, while others have written briefly on their monuments and inscriptions.[12] Aiyar has written a similar monograph on the early Cheras[13] while a few others have discussed the Chera chronology,[14] Chera capitals, etc.[15] However the work of newly opened Archaeological Department of the Travancore State, which has already gathered a number of inscriptions and examined different kinds of monuments is sure to supply abundant material for the history of these corners of south India which till now have been rather neglected.

Nothing however that has been achieved in other periods of Indian History can compare with what has been done for the Vijayanagara history. It has been really invaded by scholars from many directions using archaeological, mainly inscriptional—Tamil, Telugu, Kanerese, Sanskrit—as well as foreign sources in Portuguese and Dutch. Sewell remembered the Empire. Scholars have now ransacked the political, administrative, and social history of its various dynasties. After Sewell, Heras[16] wrote on the Aravidu Dynasty and the beginnings of Vijayanagara history; Venkataramanayya[17] on Kampila and Vijayanagara, Studies in the Third Dynasty, and Origin of the City and the Empire; Saletore[18] on social and Political Life; and Mahalingam[19] on Administration etc. Besides these scholars, other scholars have written on the question of the origin and

1. *Studies in Cola History and Administration*, 1932; *The Colas*, Vol. I, and II, 1935 and 1937
2. *ABIA*, II, No. 390.
3. *Ibid.*, III, 360; X, No, 337; XI, No. 407; VIII, No. 353; VI, No. 398.
4. *Ibid.*, VIII, No. 412; XII, No. 381; No.364; XII, Nos. 327-328.
5. *Ibid.*, IX, No. 649; VII, No. 359; VI, No. 315.
6. *Ibid.*, VII, No. 203. 346; XII, No. 331; VII, No. 374.
7. *Ibid.*, IX, No. 152; XII, No. 173; XI, No. 163.
8. *Ibid.*, III, Nos, 170-172; V, No. 167; VIII, No. 149; IX, No. 162; XII, No 223.
9. *Ibid.*, VIII, Nos. 192, 206; IX, Nos. 200, 215; X, No. 200; XI, No. 235.
10. *Ibid.*, II, Nos, 414, 417, 419, 420, 427, 428.
11. *The Pandyan Kingdom*.
12. *ABIA*, III, No. 231.
13. Cera Kings of the Sangam Period, 1937, ABIA, XII, No. 329.
14. *Madras University Journal*, 1942,
15. *ABIA*, I, Nos. 174, 224; X, Nos. 497, 532.
16. *Ibid.*, II, No. 345; V, No. 345.
17. *Ibid.*, V, No. 434. No. 452; VIII, No. 391.
18. *Ibid.*, IX, No. 443.
19. *Administration and Social Life*, Madras, 1941,

foundation of Vijayanagara,[1] on Krishnadevaraya[2] and other kings,[3] on the relations of Vijayanagara and their feudatories[4] or contemporaries,[5] on Vijayanagara polity,[6] on the embassies at Vijayanagara,[7] on religious toleration,[8] on the geography[9] of the Vijayanagara Empire, and on the causes of its downfall.[10] In this large range of subjects one feels the absence of truly archaeological studies. Let alone Chandragiri, and other places of the empire, Vijayanagara itself is a museum of architectural and sculptural antiquities. More antiquities—pottery and other kinds, etc., are likely to be found if excavations are undertaken at the numerous mounds which are strewn with, no doubt, potsherds of the period. What is expected is a comprehensive monograph on the archaeology of Vijayanagara, setting out the architecture, sculpture, iconography, etc., correlating them at the same time with the works on these subjects. For by the Vijayanagara period most of the canonical works we know of were composed whereas Vijayanagara marks the end of all truly independent Indian creation. The work so far done embraces either the general description of the ruins at Hampi,[11] or a few images,[12] coins[13] and paintings.[14]

Having thus surveyed in outline the progress in political history, it now remains to review briefly its cultural counterpart. Of course some aspects of the latter, administration, architecture, sculpture, etc., have already been mentioned wherever they could be assigned definitely to dynastic periods. In this section it is intended to look as a whole at the several aspects of cultural history, and define its chief tendencies.

A desire to know, understand and interpret Indian culture within and without India through its ancient political history seems to be one of the chief characteristics of the recent works on the subject. At times no doubt the writer being pro-Indian or otherwise, or led away by his own prejudices has not done justice to his theme. Nevertheless we now find attempts at understanding India not only by Indians themselves, but also by several foreigners, such as the Germans, the French, and the Japanese where formerly, owing to the paucity of material and dearth of interest in things Indian, scarcely any work existed besides Dutt's history and a few other works.

Among the works by Indians in English mention may be made of the works of

1. *ABIA*, Nos. 370, 383; V, No. 376; VI, No. 419; VII, No. 442; IX, No. 433, XII, No. 391; *IC*, VI, pp. 107, 244.
2. *Ibid.*, II, No. 310; III, No. 402; V, No. 430; VI, Nos. 359, 410; XI, No. 236 a, 445; XII, Nos. 369, 387; *IHQ*, XVII, p. 97.
3. *Ibid.*, III, No. 415; V, No. 380.
4. *Ibid.*, Nos. 373, 404
5. *Ibid.*, II, No. 325, VII, No. 538.
6. *Ibid.*, VI, No. 335.
7. *NIA*, p. 229.
8. *IHQ*, XIII, p. 225.
9. *ABIA*, VIII, No. 397; XI, No. 513.
10. *Ibid.*, II. No. 321, IX. No. 479.
11. *Ibid.*, III, No. 134.
12. *Ibid.*, III, No. 369; X, Nos, 272, 274; VI, No. 235; XII,No. 226.
13. *Ibid.*, III, No. 447; IV, No. 430; XI, No. 535.
14. *Ibid.*, XI. No, 236, 238.

Majumdar,[1] Mookerji,[2] Rangacharya,[3] Sarkar,[4] Shah,[5] Vaidya[6] and Venkateshwara.[7] These books lay stress on the cultural contribution of India in the field of literature, architecture, sculpture and fine arts, using the political history only as a background.

In Hindi we have two works by Jayachanadra Vidyalankara.[8] Havell, a very sympathetic Englishman, wrote a similar book in 1924,[9] besides his specialized books on Indian architecture. After him we had a work from Codrington,[10] (a reference to which has already been made) and lately by Moreland and Chatterjee[11] and Rawlinson.[12] The French works are by Comte Goblet,[13] Ourtiller,[14] Masson-Oursel and others;[15] The German by Alfons Vath;[16] the Japanese by Otoyo Tanaka.[17]

Regional studies or studies pertaining to important ancient sites have also come to the fore—a very welcome development in historical studies. For it is such detailed and specialized works which will ultimately lead to the understanding of Indian culture and the part played therein by each region or place.

Among such studies Eastern India seems to have received more attention. Monahan wrote the *Early History of Bengal*;[18] Stapelton and Sarkar on its important landmarks,[19] others on its political relations,[20] on its different districts[21] and on its art.[22]

The Glories of Magadha (Bihar) and Nālandā have been recounted by Samaddar and the writer respectively;[23] of Orissa by Mazumdar and Banerji.[24]

Barua,[25] Bhuyan[26] and Bhattacharya[27] between them have given us a connected

1. *Outline of Indian History and Civilisation*, Calcutta, 1927.
2. *Hindu Civilization from the Earliest Times upto to the establishment of the Maurya Empire*, New York, 1936.
3. *History of Pre-Musalman India*, Vol. I, 1929; Vol. II,, 1937.
4. *Creative India from Mohenjo—daro to the age of Ramakrishna-Vivekananda*, Lahore, 1937.
5. *The splendour that was India*, Bombay. 1930.
6. *History of Mediaeval India*, Poona, 1926.
7. *Indian Culture through the Ages*, Vol, I, 1928, Vol. II, 1932.
8. *Bhāratīya Itihāsa ki Rūparekhā*, Allahabad, 1933; *Bhāratabhūmi aur usake Nivasi*, Agra, 1932,
9. *A short History of India.*
10. *Ancient India.*
11. *A short History of India*, London, 1936.
12. *A short Cultural History*, London, 1937.
13. *Ceque l' Inde doit ā la Grece*, Paris, 1926.
14. *Les anciennes civilisations de l' Inde*, Paris, 1930.
15. *L' Inde. antique et la civilisation indienne*, Paris, 1930.
16. *Die Inder*, Freiburg, 1934.
17. *Jodai no Indo* (Ancient India) Tokio, 1937; *ABIA*, XII, No. 392.
18. *ABIA*, I, 267.
19. *Ibid.*, VIII, No. 418; VI, No. 427.
20. *Ibid.*, VII, No. 370; XI, Nos. 437-38: *IHQ*, XV, p. 122; p. 507; XVI, p. 179.
21. *Ibid.*, No. 436, 491; IV, No, 142: *IHQ*, XVI. p. 219.
22. *Ibid.*, IV, Nos. 135, 148; VII, Nos. 115, 185.
23. *The Glories of Magadha*, Calcutta, 1926; *The University of Nālandā*, Madras, 1934.
24. *Orissa in the Making*, Calcutta, 1925: *History of Orissa*, Vol. I, 1930, Vol. II, 1931.
25. *Early History of Kamarupa*, Shillong. 1933.
26. *Kachari Buranji*, Assam, 1936: *Tungakhungia Buranji*, 1933; *Asamar Padya Buranji* (ABIA, XI, Nos. 398, 400, 401).
27. *Kamarupa Sāsanavali*, 1931 (*ABIA*, VIII, No. 250.

account of Assam from the earliest times to the 19th century, whereas a systematic exploration of the province has also been taken up by the Archaeological Survey.

In addition to the books already existing on Nepal by European writers, we have now a work on it by Jayaswal,[1] which deals with the Lichchavis, Thakruis and other rulers of Nepal till 880 A.D.

Accounts of Chamba and Kumaon, other Himalayan places in the Himalayan terrain, have been given by Vogel[2] and others ; whereas antiquities of Kashmir and Jammu have been listed by Kak.[3]

Along with these works should be mentioned Barua's *Gaya and Buddha Gaya and* Law's *Śrāvāstī in Indian Literature*.[4]

History of the Madhyadesa, the area covering parts of the present Central and United Provinces and Malwa is found in the works of Altekar,[5] Banerji,[6] Ganguli,[7] Ghosh,[8] Ray[9] and Tripathi,[10] and articles by these scholars.[11] Ojha[12] has told in several volumes the story of Rajasthan's numerous States. To this may be added Reu's[13] history of the Rastrakutas (or Rāthods), whereas the writer[14] has reconstructed Gujarat's cultural history from archaeological sources. A brief account of Sind's early history is found in Cousen's *Antiquities of Sind* and Ray's *Dynastic History of Northern India*.[15]

On the Deccan there has been no work dealing with cultural history in its entirety. Jouveau Dubreuil wrote a small monograph and recently Sarkar has written on its certain dynastic periods whereas Cousens brought together at one place the work done by the Archaeological Survey. A reference to all these works has been made previously.[16] Karnataka's ancient history has been reconstructed by Saletore ;[17] of a part of Mysore-Ikkeri-by Puttana.[18] A collection of its inscriptions have been edited by Panchamukhi, who is also now engaged in a systematic exploration of the region.

Of further South a reference has already been made to the studies of the Pallavas, Cholas, Pandyas and Cheras. It would suffice here if attention is drawn to more general or special studies on south India. Among such works we should notice Aravamuthan's *The Kaveri, the Maukharis and Sangam Age*, Aiyangar's *Manimekhalai*, Dikshitar's *Studies in Tamil Literature and History*, and Pillai's *Tamils 1800 years Ago*. all of

1. *The Chronology and History of Nepal.*
2. *ABIA*, IV, No, 35; V, No. 427.
3. *Ibid.*,.VIII, Nos. 157-58.
4. *Ibid.*, VII, No. 104; XI, No. 502 respectively.
5. *History of Benares*; (*ABIA*, XII, No. 330.)
6. *Haihayas and their Monuments.*
7. *Paramāras.*
8. *History of Kauśāmbi.*
9. *Dynastic History of Northern India.*
10. *History of Kanauj*, Benares, 1937.
11. *ABIA*, IV, No. 91 VI, No. 455; VII, Nos. 102, No. 392.
12. *The History of Rajputana*,
13. *History of the Rashtrakutas*, 1933.
14. *The Archaeology of of Gujarat*, Bombay, 1941.
15. *ABIA*; IV, No. 108, see also *IHQ*, XVI, p. 598, for its conquest by Sasanians and Arab's see *Dr. S. K. Aiyangar Com.* Vol. pp. 11-17: and *10th A.I.O.C.R.*, 1940-41, pp, 403-10.
16. To this should be added Gupte's work on Karhad (in Marathi) Poona, 1929, and works by Rajwade, Kelkar and other in Marathi,
17. *Ancient Karnataka*, Poona 1936.
18. *ABIA*, VII, No. 412.

which strive to throw light on south Indian history from Tamil literary sources. A few articles[1] relate the history of Rajahmundry, Cochin and Kerala.

There are a few small dynastic studies such as Bhañja Kings,[2] Bhadra dynasty of Samatata[3] (East Bengal), Suketri and Kara dynasties[4] and dynasties of Kalinga and Rewa.[5]

Studies of different aspects of Indian culture which could not be noticed before are here grouped under chronology, kings and kingship ; Administration, Revenue, Trade and Commerce, Technical terms in Epigraphy ; Historical Ethnology, Geography, Institutions; Social and Cultural Life from Literature and monuments; Architecture and Sculpture (including Buddhist, Hindu, Jaina sites and iconography and religions) and Painting.

Chronological studies have been in two directions. Wijk,[6] for instance, has given us Decimal Tables for calculating the exact details of date from the *Sūryasiddhānta* : whereas others,[7] among whom Gode[8] has contributed the most, have tried to fix the date of authors, events, and things on the bases of literary references. Among these attempts[9] to fix the dates of poets Magha, Kalidasa, and Bhavabhuti deserve notice.

Studies in Indian Polity discuss the theory of kingship, obligations of the state, royal prerogatives and titles.[10]

Aiyangar, Dikshitar, Brelore, Sastri and Stein[11] have written on Hindu Administrative Institutions and State administration in Kautilya and Chola times respectively.

Hindu Revenue system, economic conditions of ancient India, and the cognate questions of India's commerce with Rome and other Western countries in the early centuries of the Christian era have been explored by Ghoshal, Pran Nath, Rawilnson and Warmigton.[12] Recently attention has been drawn to similar relations between south India, Africa and China.[13]

Literature-Kamasutra, Prākrita Pingala, etc., have been made the bases of socio—historical studies by Chakladar, Raghavan and others; foreign ambassador's account—Megasthenes'—by Timmer.[14] Similarly Barua, Moti Chandra, Naik and Codrington have

1. *Ibid.*, V, No. 403; *IHQ*, XIV, p. 503; *ABIA*; VIII, No. 424.
2. *Ibid.*, I, No. 242, IV, No. 97; V, No. 405; VI. No. 350; X, No. 263; XI, No. 418.
3. *Ibid.*, XI, No. 440.
4. *Ibid.*, VIII, No. 453; I, No. 233 respectively,
5. *Ibid.*, VIII, Nos. 353, 354, 360; I, No. 285, V, No. 459.
6. *On Hindu Chronology; ABIA*, Nos. 236-37.
7. Pillai, *The chronology of the Early Tamils*, Madras, 1932.
8. *Cf. Bibliography of his published writings*, Poona, 1941.
9. *ABIA*, I, Nos. 234; No. 350.
10. Besides the works of Beni Prasad, Jayaswal and Dikshitar there have been a few other works recently by Anjaria and others.
11. *ABIA*, V, No. 463; VI, No, 453; VIII, Nos. 283; 399; *NIA*, III, p. 307.
12. *Ibid* VI, Nos. 344-45; V, No. 418; IV, Nos. 387 and 415.
13. *NIA*, I, p. 24; *IHQ*, XVI; p. 380, and p. 486.
14. *ABIA*.; V, No. 482.

elucidated the material culture as portrayed in the sculptures of Bharhut[1] and Nagarjunakonda[2] and the frescoes of Ajanta.[3]

Attention is being devoted now to historical ethnology—to tracing the antiquity of tribes and peoples and castes mentioned in inscriptions, Puranas and tradition. Major works on these subjects include Law's *Ancient Indian Kṣatriya Tribes*, Saletore's *Wild Tribes in Indian History*, and Narasimhaswami's *The Bhutas*, whereas a number of articles deal with the Banas, Kośars, Palayagars, Mīnas, and Gaudas;[4] others with origin of some castes,[5] race drift in south India[6] and personal names in the inscriptions of the Deccan.[7]

Some interest has been shown in geographical studies, but except a few cases all the attempts deal with detached places. There has been no attempt to write on the geography of a region or of a dynasty either on the data culled from literature or inscriptions. Cunningham's work is now re-edited[8] with all the necessary modifications ; so also Dey's.[9] Berthelot has brought out an edition of Ptolemy's work on ancient Asia.[10] Of the few exceptions referred to above are Pithawala's *Historical Geography of Sind*, and Law's *Geography of early Buddhism*.[11] Among stray articles a large number discuss the identification of Lanka;[12] places mentioned by Ptolemy,[13] such as Karours, Palours, Ponnate, Sopatma, Gandaridai ; Pundravardhana and other sites in Bengal;[14] Kalinganagara, etc. on the Orissan coast.[15] On the western coast identifications have been attempted of Dwarka,[16] Trikuta, Dandakāraṇya, Carnate, etc., whereas a couple of articles relate to the Deccan,[17] a few to the Vedic geography[18] and sites and rivers in the Punjab[19]. There is a solitary instance where place-names have been correlated with cultural history.[20]

A hundred years ago Ram Raz's 'essay' was the only work dealing with the theoretical aspect of Indian architecture. A little later Kern and others edited the *Birhat*

1. *Aspects of Life*; Motichandra, "Indian Costumes etc.", *BI*, I, pp. 28; *JIOSA*, VIII, pp. 62-145 and 185-224.
2. *BDCRI*, II, pp. 50-111; 263-299.
3. *Ind. Ant.*, LIX, p. 159 and 169.
4. *ABIA*; VI, No. 412; VIII, No. 335; VII No. 413; *NIA*, II, p. 389; *IHQ*, XIII, p. 162.
5. 1911: *Ibid.*, VI Nos. 340 and 351. 402.
6. *ABIA*, V, Nc. 449.
7. *BDCRI*, III, pp. 349-391.
8. *Geography of Ancient India*.
9. *The Geographical Dictionary of Ancient and Mediaeval India*, London, 1927.
10. *ABIA*, VIII, No. 426.
11. Also his *Geographical Essays*, I, 1937. London, and Bibliography of Publications relating to ancient Indian Geography, *ABIA*, X, pp. 12-20.
12. *ABIA*, I, No. 303; V, No. 489; VII, No. 488; XII, No. 403; *NIA*, I, p. 463; *ABORI*, XXI. p. 270.
13. *Ibid.* IV, No. 420, I, No. 229; XI, No. 463; V, No. 491; VIII, No. 440, respectively.
14. *Ibid.*, IV, No. 425, VIII, No. 444, 439; VII, No. 495.
15. *Ibid.*, IV, Nos. 422; 426, 379; I, No. 301; No. 300; *IHQ*, XV, p. 475.
16. *IHQ*, XIII, p. 700; *ABIA*, VI, No. 461.
17. *ABIA*, IV, Nos. 428; XII, No. 400; XI, No. 512; XII; No. 415.
18. *ABIA*, V, No. 490., *IHQ*, XIV., p. 779.
19. *Ibid.*, VIII, Nos. 428, 430.
20. *Ibid.*, VIII, No. 366; VII, No. 504; XI, 515.
21. *IHQ*, XV, p. 137.

Samhita, Agni, Vayu and other Puranas, all of which dealt incidentally with descriptions of temples and images. Simultaneously with this, Cunningham and his assistants published accounts of Buddhist, and Brahmanic monuments with drawings and photographs of architectural pieces. These were studied by Fergusson. But barring Burgess and after him Cousens no one tried to describe the temple from an Indian point of view using either the classical (Sanskrit) or local terms in usages, primarily because very few works existed with which the archaeological architecture could be compared.

The work after the last war removed this want to a great extent. Acharya edited, translated and illustrated the *Mānasāra*[1] and published a fairly comprhensive dictionary of Indian architecture.[2] Likewise other ancient works on architecture are also published by Bose,[3] Ganapati Sastri[4] and others,[5] a number of scholars have discussed the application of classical terms to existing monuments, or given a theoretical description of town planning, temples, theatres and forts.[6] Among the former the most controversial topics is the significance of the terms *Nāgara, Vesara*, and *Dravida*.[7]

Beginning with Havell, scholars have also tried to interpret[8] Indian architecture, and to lay bare its psychology, 'symbolism', or 'art and philosophy'.

Archaeological study of architecture has kept apace, most of which is already alluded to wherever it came within a definite dynastic sphere. After Fergusson briefly described the different types of Indian architecture, Jouveau Dubreuil and Foucher studied in great detail the south Indian and Gandhāra architecture respectively. In this quarter Codrington[9] Coomarswamy[10] and a few foreign[11] and Indian scholars[12] have once again approached the subject devoting greater attention to certain periods. Owing to the work of the Archaeological Survey of India and that of various Indian States more material is now available for a regional and dynastic study of monuments in Rajasthan, Central India and Central Provinces, Gujarat, Karnatak-Mysore, Hyderabad, south India, Bihar, Bengal and Orissa. A number of publications[13] now exist which give a bird's eye view of Indian architecture.

Indian sculpture and iconography are dependent upon architecture, for they form a part of it. Hence more the discovery of specimens of the latter greater the opportunity for studying the regional development and distribution of images of different cults. Likewise more publications of ancient works on architecture, which incidentally deal

1. *Indian Architecture*, 1927, 1934.
2. *A Dictionary of Hindu Architecture*, Oxford, 1927; see also Coomaraswami, Indian Architectural Terms', *JAOS*, 48, (1928). p. 250.
3. *Śilpa Śāstra*, Lahore, 1928.
4. *Samarāngana Sūtradhāra*, Baroda, 1926.
5. Bose, N.K. *Canons of Orissan Architecture*, Calcutta. 1932. *Kāśyapa Śilpa*, Poona 1926; Hindu Architecture according to Tantrasamaccaya', *IHQSA*, V. p. 204.
6. *ABIA*, II, No. 167; VI, No. 181; No. 184; XII, No. 170; I, No. 113-14.15., XI, No. 415.
7. *Ibid.*, VIII, No. 115; XII. No. 155.
8. *Ibid.*, I, No. 102; II, Nos. 151, 155, 196, 219; XI, Nos. 61-62.
9. *Ancient India.*
10. *History of Indian and Indonesian* Art, 1929; and *ABIA*, IV, No. 64; VI, No. 162.
11. Bately, *The Design development of Indian Architecture*, London 1935.

with images and at times with iconometry enable us in identification of images and understanding regional changes. Thus has the outlook in iconographical studies been changing since Gopinath Rao wrote his volumes *Elements of Hindu Iconography*. He had based his work on some published and unpublished canonical literature and illustrated the various types of images from existing monuments without attempting a chronologicial and regional correlation between them. Now, in addition to the works on architecture mentioned above, are published the *Vishnudharmottara, Pratimālākshanam, Devatamurtiprakaranām* and *Rūpamaṇḍanam, Pratimamanalakshanam, Brahmayāmala Tantra, Vāstusāra prakaranam* etc.

The ground for a scientific study of iconography is thus prepared. The studies however have so far, except in a few cases, not proceeded on the desired lines. No doubt there have been numerous articles on the subject and its sub-branches. But they all deal with stray, unrelated images. Hence only the most important contributions are here indicated.

Images of Krishna and Balarama,[1] believed to be of the Kushana period, are reported from the U.P. and rare images of the 24 forms of Vishnu from Gujarat,[2] Vishnu's ten incarnations from Bengal,[3] uncommon types of 5 faced composite Vishnu, usually identified as Pañcamukhi Hanuman.[4] Discussion has also centered round the Mother and Child images,[5] the evolution of the image of Śrı or Lakshmī[6] and the Varaha *avatāra*[7] and the cult of the Śalagrāma.[8]

The identification of a few seal—figures from Mohenjodaro as proto-types of Śiva, and other objects as Śaiva symbols has raised new problems with regard to the antiquity of the Śaiva cult and Siva image. More of such regional and literary studies as the *Origin of Śaivism and its History* in *the Tamil Land, Rudra Śiva* would be welcome. For it is the correlation of these individual studies with similar archaeological studies that will very likely lead to some definite results. On similar lines are the attempts to study the history of phallicism in India,[9] Sadāśiva worship and the Śākta cult in Early Bengal'[10] and the representation of Śiva on early Indian coins.[11] Whereas a number of articles deal with later Śaiva images of stone and bronze, the discovery of *ekamukhalingas* of the Gupta period from Central India and Mathura,[12] and of a unique gigantic Śaivaite sculpture from Parel (Bombay)[13] are important for the history of Saiva

1. Iyer, *Indian Architecture*, Madras, 1929; Gangoly, *ABIA*, IV, Calcutta, 1928.
2. Hurlimann, *Picturesque India*, Bombay, 1929; Wallace, *Panoramic India*, Bombay, 1931.
3. *ABIA*, III, No. 192; XII, No. 215 respectively; cf. also III, No. 191.
4. *JBU*, VII, 4 pp. 1-6. *IHQ*, XVI, p. 524.
5. *IHQ*, XVII, p. 373; *ABIA*, IV, No. 225. (It has been pointed out that this may be a Tāntric Buddhist image).
6. *ABIA*, III, No. 191; *NIA*, II, p. 113.
7. *Ibid.*, VIII, No. 208.
8. Hartmann, *Geschichte der Gotten Laksmi*, Leipzig, 1933, (*ABIA*, VIII. No. 216); and V, No. 249; X, Nos. 242, 250,
9. *ABIA*, IX, No. 230.
10. *Ibid.*, X, No. 88.
11. *Ibid.*, X, No. 228,
12. *Ibid.*, X, No. 233, *IHQ.*, XVI, p. 118.
13. *IHQ*, XVI, p. 489. No. 151.
14. *AIBA*; VI, Nos. 221, VIII, No. 225.
15. *Ibid.*, I. No. 131; No. 255.

iconography. Subsidiary deities of the Śaiva pantheon-Karttikeya,[1] Ganeśa,[2] Kshetrapāla,[3] Piśācha,[4] as well as the emblems or weapons[5] held by these deities have also received attention. Among these Getty's monograph on Ganeśa, though not strictly on historical lines, deserves notice.

Early and rare types of Surya images are found from Afghanistan[6] and Bengal[7] and Kathiawar[8] respectively. Of the rest of the miscellaneous articles mention should be made of studies of Agni,[9] Yama,[10] Brahma,[11] Dhanvantari,[12] Lokapalas,[13] Yakshas,[14] folk goddesses,[15] Ganga-Yamuna[16] and symbolism in iconography[17] and sculpture.[18]

Early Indian archaeology, if not wholly, was mainly Buddhist. Bharhut, Sanchi, Amaravati, Mathura, Gandhara and later the excavations at Taxila and Nalanda had yielded rich and spectacular finds, with the result that Buddhist art—architecture, sculpture and iconography had already attracted many a foreign scholar before 1918. In the last 25 years archaeological explorations in India and outside—Afganistan, Chinese and Russian Turkestan on the one hand, and Ceylon and the Malay Archipelago on the other—have not only added immense material but raised new problems for study.

Bhattacharyya[19] did for Buddhist iconography and on a much more exhaustive scale what Gopinath Rao had done for Hindu iconography. Before him Foucher and Grünwedel had written on the subject, but their treatment was not exhaustive, nor did they deal with the later development in Buddhist iconography caused by Tantric influences. Bhattacharyya ransacked the Tantric texts (*Sādhanas*), edited[20] and analysed them and correlated the material with archaeological specimens wherever it was possible to do so. Bhattasali[21] followed him. Since then a number of articles and small monographs have been published on the early and late iconography of Buddhism. Among the former mention should be made of the works of Foucher[22] and Coomarswamy[23] where an attempt is made to interpret the subject from metaphysical points of view. Individual features of this early phase, more properly known as the signs of the *mahāpurusha*, such

1. *Ibid.*, I, Nos. 131, 255.
2. *Ibid.*, III, No. 161 ; IX, Nos. 222; 228; *JISOA*, VIII, pp. 41-55; *JIH*, XVIII, pp. 188-194.
3. *Ibid.*, VIII, No. 209.
4. *BDCRI*, Vol. II, p. 220.
5. *ABIA*, III, No. 177: VII, No. 247; *IHQ*, XIII, p. 717 ; XV, p. 129.
6. *Ibid.*, XII, No. 594.
7. *Ibid.*, VIII, Nos. 210, 222, 246.
8. *JBU*, VI, iv, pp. 56-57.
9. *ABIA*, V, No. 250; IX, 234; X, Nos. 173, 229.
10. *NIA*, II, p. 282.
11. *ABIA*, XII, p. 225.
12. *Ibid.*, XI, No. 257.
13. *Ibid.*, XI, No. 255.
14. *Ibid.*, III, No, 226; VI, No. 220.
15. *Ibid.*, No. 230; *IHQ*, XIV, p. 101; and XV, p. 523.
16. *Ibid.*, X, No. 251.
17. *Ibid.*, XI, No. 277; III, No. 233; VI, 229; VII, No. 253; VIII, No. 226.
18. *Ibid.*, III, No. 242; XII, No. 215; No. 249.
19. *The Indian Buddhist Iconography*, 1924.
20. *Sādhanamāla*, Vols. I and II, Baroda, 1925 and 1928.
21. *Iconography of Buddhist, and Brahmanical Sculptures in the Dacca Museum*, Dacca, 1929.
22. *On the Iconography of Buddha's Nativity*, 1935.
23. *Elements of Buddhist Iconography*, 1935.

as Buddha's *chuḍa* and *ushnīsha*, have been minutely studied by scholars.[1] Longhurst, Combaz and others[2] have discussed the symbolism and evolution of the *Stūpa*.

Articles on the later Buddhist iconography relate to Tāra and to some uncommon Tantric gods and goddesses.[3]

Connected with this subject is the origin of the Buddha image. Coomaraswamy,[4] Ganguly and others[5] hold that it orginated in India, owing to certain religious developments, whereas Scherman,[6] Longhurst and others (recently Tarn[7]) ascribe its origin in Gandhara due to Indo-Greek influences.

A third view of Heras[8] derives the Gandhāra art itself from indigenous sources, thus implying the Indian origin of the Buddha image also.

Indian art—Buddhist and other sculpture—has been widely studied by foreign scholars, among whom reference may be made to the works of Bachhofer,[9] Diez,[10] Doehring,[11] Fischer,[12] Kramrisch, Wallschmidt,[13] Hackin,[14] Havell,[15] Codrington,[16] and Vogel.[17]

Besides these monographs there are a number of articles on the Gandhara,[18] Bodhgaya,[19] Mathura,[20] Bharhut,[21] Sanchi,[22] Andhra,[23] (Amaravati, Jagayapetta and Nagarjunakonda), Early Bengal,[24] Pala[25] and other[26] sculptures.

The spread of Buddhism beyond the frontiers of India in the North has been further confirmed by the explorations of Hackin, Wright and others in Afghanistan, in the Swat valley and Central Asia (Chinese and Soviet Turkestan) ; its strength in Central India, the Deccan and the Andhra country by the discovery of the Buddhist

1. *ABIA*, III, No. 229; VI, Nos. 214, 217, 227; X, No. 244; XI, No. 258; IV, No. 222; V, Nos. 239; VI, Nos. 215, 218; III, No. 241; VII, No. 250; X, No. 245; XI, No. 263, XII, No. 213.
2. *Ibid.*, XI, No. 190; XII, Nos. 149-150; I, No. 101; II, No. 156; III, Nos. 153, 186; V. No. 196; VI, Nos. 178, 183; VIII, Nos. 152, 154, 162; X, Nos. 164, 182; XI, No. 182; *IHQ*, XIV, p. 1-56; 440; XVII, p. 123.
3. *Ibid.*, I, No. 165; III, No. 222; IV, Nos. 179, 196; *IHQ*, XV, p. 278 and *BDCRI*, I, pp. 44-59.
4. *Ibid.*, I, No. 140; II, No. 202;
5. *Ibid.*, IX, No 221.
6. *Ibid* , III, No. 238; IV, No. 176.
7. *Ibid.*, No. 592. *The Greeks in India.*
8. Origin of the so-called Greco-Buddhist School of Sculpture of Gandhāra.' *ABIA*, XII, No. 156.
9. *Early Indian Sculpture.*
10. *Die Kunst Indiens*, 1926.
11. *Indische Kunst*, 1925.
12. *Die Kunst Indiens*, 1928.
13. *Buddhistische Kunst Indiens*, Berlin, 1932.
14. *ABIA*, XII, No. 592.
15. *Indian Sculpture and Painting*, London, 1928.
16. *Indian Sculpture.*
17. *De Buddhistich Kunst*, Amsterdam, 1932; and *La Sculpture de Mathura*, 1930.
18. *ABIA*, II, No. 205; III, Nos. 178, 201; V, Nos. 175, 187, 244; VII, No. 196; IX, No.177; VIII, No. 133; IX, Nos. 217, 219; XII, No. 156, 211a; X, No, 132; X, Nos. 267, 253.
19. *Ibid.*, XII Nos. 142, 151, *IC*, IV, p. 97.
20. *Ibid.*, VII, Nos. 93, 245; XII, 210a.
21. *Ibid.*, II, No. 129; X, No. 239.
22. *Ibid.*, VII, 191.
23. *Ibid.*, III, Nos. 106, 227; IV, No, 160-61; VI, No. 225; VII, No. 242; X, Nos. 226; XI, No. 264.
24. *Ibid.*, XII, No. 175.
25. *Ibid.*, VIII, No. 148; XII, No. 159, No. 131.
26. *Ibid.*, III, No. 92; VIII, No. 611; IX, No. 757; IX, No. 167; *NIA*, I, p. 544.

caves at Bagh and Aurangabad and the excavations at Nagarjunakonda and the finds of Buddhist sculptures near Goli village (Guntur District) ; its affinity with Java by the discovery of numerous bronzes at Nalanda, Kurkihar and other places in Bihar ; its preservation in Nepal and Tibet by the collection of bronzes, manuscripts and painting from these countries.

Naturally new vistas of studies have been opened up by these discoveries. Hackin[1] and others have pointed out the influence of the colossal Buddhas at Bamiyan on Buddhist sculpture elsewhere. The discovery of Andhra sculptures from Ceylon would stimulate the further exploration in that country ; whereas the Nagarjunakonda sculptures have provided immense material for a study of the material culture of the period and the Jataka stories portrayed therein. The relation between the Nalanda and Java art has been discussed by Kempers and others, whereas the varied data from Nepal and Tibet particularly the manuscripts enable scholars to reconstruct many a lost Buddhist text.

The progress in Jaina studies, considering the antiquity of the religion, its vitality, and the preservation of its manuscripts literature in Jaina *Bhandaras*, may be said to be negligible. The scholars and their works in its different aspects can be easily recounted. Omitting the number of Jaina texts published in various *granthāvalis* we have from Winternitz[2] and Desai,[3] a fair idea of the history of the Jaina litrature ; from Glasenapp[4] and Guerinot[5] of the Jaina religions ; its traditional chronology from S. Shah[6] and historical development in north India and Karnatak from C. G. Shah,[7] Saletore[8] and Sarma[9] respectively.

Jaina archaeology is still in its infancy. For a long time Smith's *Jaina Stupa at Mathura* was the only work on the subject, whereas in the South Jainism was represented by the colossal statute at Śravana Belgola. Now Nahar[10] has brought together all the Jaina inscriptions ; a few articles have appeared announcing the discovery of the Jaina monuments from different parts of India—Gujarat[11] Kathiawar,[12] Marwar,[13] Bengal[14] south India (Pudukotial State)[15] or of different periods;[16] and attempts are made to write on its iconography,[17] while considerable attention has been paid to miniature

1. *Ibid.*, III, No. 628; XII, No. 592.
2. *History of Indian Literature*, Vol. II.
3. *History of Jiana Literature*, (in Gujarati)
4. *Der Jainismus*, Berlin, 1926.
5. *La Religion D jaina*, Paris, 1926.
6. *The Traditional Chronology of the Jains*, 1935.
7. *Jainism in Northern India*, 1932.
8. *Mediaeval Jainism.*
9. *Jainism and Karnataka Culture*, Dharwar, 1940.
10. *Jain Inscriptions.*
11. Nawab, *Jain staya Prakash*, (in Gujarāti) V, pp. 203; VII, p. 211-223; and Sankalia, *BDCRI*, I, p. 185ff.
12. *JRAS*, 1938, p. 426; and XII, No. 272.
13. *ABIA*, XII, No. 221.
14. *IC*, VI, pp. 137-40.
15. *ABIA*, IX, No. 216.
16. *Ibid.*, II, No. 212; IV, No. 169, No. 235; XII, No. 161.
17. *Ibid.*, II, No. 208; III, No. 159; X, No. 240; VI, No. 149; VIII, No. 218; IX, No. 227; and Bhattacharya, *Jaina Iconography*, Lahore, 1941; Sankalia, "Jaina Inconography" *NIA*, II, p. 49; ff., *Jaina Antiquary*, IV, p. 85; V, p. 49; *IHQ*, XVI. p. 314. Shah, *JUB*, IX, ii, pp. 147-169; X, p. 195.

paintings on medieval Jaina manuscripts.[1]

There has been remarkable progress in the discovery and study of Indian paintings of all periods. Whereas formerly Ajanta represented the ancient period, and Rajput and Mughal the Medieval period, we now have a few more traces of the prehistoric and ancient, from different parts of India, while the miniature paintings in early manuscripts from Gujarat, Bengal and Tibet, and wall paintings from Turkestan have revealed the so-called schools of paintings in these regions in the early medieval period. This wide distribution of paintings in nooks and corners of India implied a systematic cultivation of the art in the country.[2] This has been attested to by *Viṣṇudharmottara*,[3] and numerous references to the art in Indian literature[4] of all kinds.[5]

Rock-paintings, supposed to be of the prehistoric period, have been found at Mahadeo hills[6] in the Central Provinces (Madhya Pradesh) and recently in Sind.[7]

Hitherto the earliest historical paintings came to light from the Vaishnava Cave III at Badami,[8] whereas the extension of the Ajanta art was traced in the caves at Ellora[9] and Aurangabad, in the late Pallava[10] and early Chola temples at Kanchi and Sittanavasal[11] respectively. The art survived in south India till late, for its manifestation is found in the Vijayanagara temples at Lepakshi,[12] in the Brihadiśvara temple at Thanjavur,[13] and in the Palace and temple in Cochin[14] and Trichur respectively.

Existence of a medieval Gujarat School of painting is postulated on the strength of a number of miniature paintings on Jaina,[15] Vaishnava[16] and Śaiva[17] and other secular manuscripts.[18]

More evidence has been gathered for similar school of miniature painting which flourished in Eastern India.[19] Its spread to Tibet has been proved by the discovery of Indian paintings in Western Tibetan temples by Tucci[20] and others.

1. Brown, *ABIA*, IV, No. 189; VIII, No. 179; IX, No. 193: XII, No. 186, Mehta, *ABA*, IV, No. 208; Comarswamy, X, Nos. 194, 195. Nawab, *Jainacitrakalpadruma*, (in Gujarati), Ahmadabad, 1935.
2. Cf. Stchoukine, *RAA*, IV. pp. 146-152 (*ABIA*, II, No. 194.)
3. Kramrish, Stella, Calcutta, 1924; *ABIA*, I, No. 149, and VII, No. 215,
4. Coomaraswamy, *ABIA*, V, 213; VI, No. 196; VII, No. 212; VIII, Nos. 182-183.
5. From Kalidasa, Bana and others, Sivaramamurti, *ABIA*, VIII, Nos. 202, 203, 204, Raghvan, *ABIA*, VIII, No. 201.
6. *ABIA*, XI, No. 227.
7. *JRASB*, VII. 1941; No. 2, pp. 197-202.
8. *ABIA*, XI, No. 231.
9. *Ibid.*, I, Nos. 139, 158; VI, No. 211; VII, No. 210.
10. *Ibid.*, VI, Nos. 192, 203; XII, No 206a.
11. *Ibid.*, VII, Nos. 227-228; X, No. 190; XII, No. 203.
12. *Ibid.*, XII, No. 206.
13. *Ibid.*, XII, Nos. 203, 204.
14. *Ibid.*, Nos. X, 189; XI, Nos. 216, 217, 218.
15. *Ibid.*, VI, Nos. 215-216; VIII, No. 79; IX, No, 192.
16. *Ibid.*, V, Nos. 209, 218, 222; XI, No. 233.
17. Majumdar, *NIA.*, II, pp. 311-16; Sastri, *IHQ*, XIV, pp. 425-431.
18. *ABIA*, VI, No. 201.
19. *Ibid.*, I, No. 157; VIII, No. 186.
20. *Ibid.*, XII, No. 207; XII, No. 617-18; Roerich, *ABIA*, II, No. 191.

While new discoveries are being made, the old material—the frescoes at Ajanta—is being scientifically preserved and copied.[1] Scholars have also undertaken general survey[2] of the art as well as investigations of its technical[3] and cultural aspects.[4]

Two facts emerge from this survey. The first is that political history has received greater attention than the cultural from scholars. Comparatively little has been done in subjects like historical geography or ethnology, regional study of cults and iconography or material culture as illustrated by sculptures and paintings. This tendency to lay stress on chronology is inevitable, as it is the foundation of historical knowledge. However, much light can be thrown on Indian Culture in general if other aspects are simultaneously attended to. Inscriptions, which constitute a major source for ancient historical studies and which hitherto have been studied mainly from dynastic point of view, can be utilized more exhaustively. The names of Brahmana and other donees mentioned therein, if studied geo-chronologically and correlated with present day Brahmana (or other) names and *gotras*, will contribute to our knowledge of historical ethnology. The identification of inscriptional place names, and similar names occurring in the literature of the period corresponding to the region, will not only form the bases for a corpus on ancient geography of India, and help to understand the territorial divisions of the region for administrative purposes, but a correlation of the ancient names with the modern will also explain the linguistic changes. If, further, certain names occur continuously in a number of dynastic periods they will explain the linguistic evolution as well as the historical importance of the places. Such repeated references to a place or places will also supply clues for archaeological exploration.

The second fact that would strike one is that there has not been sufficient field work. Hitherto archaeological exploration was done by the Archaeological Survey of India and recently it has been taken up by a few Indian States, like Baroda, Mysore, Hyderabad, Travancore and Jaipur. Universities, Museums, and research societies have hardly played any part in it. If the reason for this is partly attributable to Government aloofness, the Universities and such other bodies also cannot escape the blame for their apathy. Until recently they have never encouraged field work. This is necessary not only for all periods of archaeology—prehistoric, protohistoric, historic—but also such subjects as historical geography and ethnology. As suggested before a systematic study of the latter might yield clues for archaeological exploration. And none except universities, museums and research institutes can take up such work for want of facilities—survey maps, etc. These institutions must come forward and co-operate with Government and the States—and both these should reciprocate—in a co-ordinated scheme of research; for culture knew and knows no political frontiers.

1. The Colour and Monochrome reproductions of the Ajanta frescoes based on photography.' Part I, II, London, 1930.
2. Mehta, *Studies in Indian Painting*, *ABIA*, I, No. 153; Ghosh, 'A Comparative Survey of Indian Painting', *ABIA*, I, No. 144; 'The Development of Jaina Painting', *ABIA*, II, No. 184; Kramrisch, *A Survey of Painting in the Deccan*, London 1937.
3. *ABIA*, XII, Nos. 202, 204.
4. *Ibid.*, II, No. 186; VII, No. 221; VIII, No. 180; XII, Nos. 187, 197, 199; *ABORI*, XII, p. 24.

REGIONAL AND DYNASTIC STUDY OF SOUTH INDIAN MONUMENTS

The history of the discovery of ancient monuments in India is hardly a hundred years old. It was in 1870 that General Cunningham began a systematic study of the monuments in Northern and Central India. He was followed a few years later by Dr. Burgess, who confined his attention to the exploration of certain parts of Western and Southern India.

The researches of these pioneer workers in Indian archaeology were systematized and commented on by Fergusson, Grünwedel and later by Foucher and Vogel. By 1910 it appeared that we knew fairly well the broad characteristics of Indian monuments then known. Thus, for instance, the earliest known monuments—caves, pillars and so forth—were recognized to be of the Maurya period: those from the North-west Frontier and the Punjab as Gandhara or Indo-Greek ; the specimens from Mathura as Kushana and all the work of the 4th—8th century was known as Gupta, whether it was found in the region actually ruled by the Guptas or not.

In south India the monuments of early period were attributed to the Śatavahanas, Chalukyas, Pallavas and the Rashtrakutas respectively.

The monuments of the medieval period, of which the temples only survive, were and are still divided into north Indian and south Indian or Dravidian, and the former sub-divided into further three groups.

Owing to so wide an outlook, which was natural in the infant stage of the study of Indian monuments, any new monument that was found, was grouped under the one or the other class mentioned above, irrespective of its time and geographical context. The result was that not only our knowledge of these monuments remained vague, but we missed the cultural aspects of any monument or group of monuments in a particular region at a given period.

Mr Codrington of the India Museum, London, was the first to show his discontent with this state of affairs, though two French scholars before him, Prof Foucher in 1905 and Prof Jouveau-Dubreuil in 1916, had made a regional study of the Gandhara and south Indian monuments respectively. On Prof Jouveau-Dubreuil's work I will have to speak at some length later. Mr Codrington in his two books *Ancient India* and *Mediaeval Sculpture* tried to define the limits of the Gupta art and architecture and warned us not to drag anything and everything properly post-Gupta into the Gupta period.

He was followed by Ludwig Bacchoffer who confined his work to defining the characteristics of Indian Sculpture of the early period.

The case of the succeeding period in northern India has not yet improved. Pioneer workers in the field classified the temples, which are the principal monuments of the period, into two or three types. This was a good working definition some 30 years ago, but now we should improve upon it and define clearly what actually are the monuments of the early medieval dynasties, the Gurjara-Pratiharas for instance, who ruled over practically the whole of north India or the Chandellas, the Paramaras, the Chalukyas or Solankis of Gujarat.

For want of systematic study of the temples, even apart from architecture, our knowledge of iconography as well as of the temples themselves as repositories of particular cults is vague. Early attempts in the study of Hindu Iconography have mixed up archaeology with literary antiquarianism. We do not know, for example, what the actual or archaeological evolution of the Śaiva pantheon is in the south and in the north ; what again, for instance, the earliest image of Ganeśa is, when it came to be so popular as to find a place in all the Hindu and even Jaina temples.

Dr. Bhattacharyya's work on Buddhist iconography suffers from the same defects as Gopinath Rao's on the Hindu Iconography. It does not tell us of the evolution of the Buddhist pantheon in Western India, for instance. This remains to be worked out as I will explain later. But nothing has been done for Jaina iconography since Burgess wrote in 1903. I have, however, dealt at some length the subject as to how it should be approached from the theoretical or *śastric* and the archaeological points of view in an article in the *New Indian Antiquary*[1] and recently in the *Bulletin of the Deccan College Research Institute*.[2]

These are some of the problems that should engage our immediate attention in the study of the ancient Indian archaeology.

In the prehistoric period our efforts have to be directed at finding out the extent, for instance, of a type of culture respresented by megalithic monuments such as dolmens, numerous specimens of which have been found all over south India, and recently near Pune ; whereas we have yet to make a beginning in building up our palaeolithic and neolithic periods and to connect them up with that of the chalcolithic period discovered in Sind, Baluchistan and the Punjab. But this Indus culture itself stands unrelated elsewhere in India, though affinities with it have been found in the Near East.

For working out these problems I suggest a detailed and exhaustive study of the monuments of a particular region, and wherever possible of the dynasty that ruled over it. The dynasty and the region are to serve as a norm, or standard, to measure our results with. They may have to be given up or modified as necessity arises. This

1. *NIA, A Volume of Indian and Iranian Studies*, 1940, pp. 335-358.
2. *BDCRI*, Vol, I, p. 163.

method was followed by me in my study of the archaeology of Gujarat with a few but striking results.

The aims of such a study are threefold :

Firstly, to obtain as much precise knowledge as possible with regard to the development of various styles in architecture and sculpture.

Secondly, to know exactly the position of different cults, Śaiva or Vaishnava, for instance, in a given region at a given time.

Thirdly, to enable us to search for monuments of a particular type or dynasty in a region where it has not been found, but which lies within a certain cultural belt.

The method of study takes two forms.

Firstly, where we know a certain dynasty to be ruling over a particular region, it is advisable to start with a detailed analysis of its records, viz. the inscriptions, noting in particular :

their find-spots,
the places from which they are recorded,
the places referred to by them,
the references to temples or other monuments, etc.

From this material we can prepare a skeleton geography of the region and use it in our study of the monuments of that region. Of course, we would derive the greatest advantage from this epigraphical study, if it could help us in dating the monuments.

The next step is to study the known monuments in detail analysing their masonry, architecture, sculpture, iconography and other features and then classify the material so gathered into groups such as architecture, sculpture, iconography, following in each group a chronological order, as far as possible, based either on dated works, or on reasons of stylistic development or on both.

The results so obtained in any branch of the subject can be used for comparing them with those of the neighbouring region, or for finding out similar things from the hitherto unexplored parts of the same region. It was thus that we discovered some monuments in the Pune District this term (November-March 1939-1940). In short, we go from the known to the unknown.

Our dynastic knowledge is, however, incomplete. Therefore, in the majority of cases a regional study will have to be attempted, and wherever dynastic knowledge is available it must needs be examined afresh as mentioned above.

The subject of this paper 'The Regional and Dynastic Study of the Monuments of south India' forms really a course of twelve lectures which I have selected for the students of the Institute. In the first lecture, I dealt with only the prehistoric sepulchral monuments in south India and the Deccan. I cannot and would not follow a similar procedure this evening. For the very nature of the lecture, I think, sets two limits to it. First, it must be exhaustive, surveying the monuments of south India, at the same time,

pointing out the scope of the work that remains to be done with regard to them; in the second place, the paper must be a study giving the results of my researches. Since it is not possible to deal with the subject in its entirety, I propose to divide the lecture into three parts. In the first part, I shall give a brief survey of the monuments, indicating the problems that require to be worked out; in the second, put before you the results of my study of a section of the monuments, and in the third, illustrate both the above parts of the lecture with lantern slides, prepared from my photographs.

Unlike the monuments of north India, some of the south Indian monuments have been studied not only often but well. As far back as 1916 Prof. Jouveau-Dubreuil wrote his *Archeologie Du Sud Du L'inde*, *Dravidian Architecture* and *Pallava Antiquities* studying in great detail the two aspects of south Indian monuments, viz. architecture and Iconography. The last two books still remain a model on which further studies should be based, for the method followed therein is exactly the one I suggest. But it is necessary to revise his book on the *Archaeology of south India*, firstly, because some more material has come to light since Jouveau-Dubreuil wrote ; secondly, the subject he has tried to study is too vast; it should be first split up regionally and studied in detail as he did the Pallava monuments; thirdly other aspects of the monuments should also be included in that study.

The Study should comprise all the mounments prehistoric or of prehistoric-type, and historical upto about 1700 A.D.

With a view to achieving the ends mentioned just now, the entire peninsular region, the ancient *Dakshiṇāpatha* for convenience's sake, may be divided into four divisions; the first division would consist of the Deccan and the Karnataka, embracing more or less the western upper half of the peninsula, between the Tapti and the Tungabhadra.

The Second division would be formed by the country including Mysore (now part of Karnataka State) and further south, the part of ancient Karnataka, Kerala and Pandya territories.

The third division would cover the ancient Andhradeśa, the eastern upper half of south India, the region between the Godavari and the Krishna, including principally the Telugu speaking districts of Krishna and Guntur.

In the fourth and the last division would fall the lower eastern half of the peninsula, the ancient Tondaimandalam and the Cholamandalam of the *Sangam* classics, comprising the modern Nellore, N. Arcot, S. Arcot, Chingleput, Triuchirappally and Thanjavur districts.

The above four divisions are not absolutely arbitrary. To a certain extent they could be so divided linguistically. And in ancient times, the rule of the various dynasties, the Śatavahanas, Andhras, Chalukyas, Rashtrakutas, Pallavas and others was more or less co-extensive with the divisions set forth above. In fact it is this knowledge which has enabled us to divide south India in this way.

The early monuments of the Deccan consist principally of caves. Beginning with Burgess, Fergusson and Bhagwanlal Indraji many others have written upon them. Some of these caves, e.g., the Chaitya cave at Karle and the sculptures at Bhaja are the best figured monuments in India, ranking with the Taj. But we do not still know what the exact architectural and sculptural development was in these caves of the Deccan. What again is the position of Buddhist iconography in Western India ? What is the number of the images of its pantheon ? These are some of the problems which should now be tackled. It can be done if all the caves are studied systematically, region by region, and the start can well be made with the Pune and Thana Districts.

For the early period there is enough material to work upon. But what about its predecessors, the proto and the pre-historic periods ? Since the beginning of this century the search for palaeolithic and neolithic remains came to be neglected in India, when Mohenjodaro came to its rescue and created an interest in finding out lost cities and cultures.

But we have still to go beyond this period of Mohenjodaro, not only in Sind but in other parts of India as well. And in this march backwards, the contribution of this part of the Deccan is yet negligible. Agreeing with some archaeologists that, in the Deccan the trap—rock is too near the surface to allow gigantic artificial mounds to be formed on ancient sites which we could excavate, still our attention could be turned towards the search for purely palaeolithic and neolithic finds. A few years ago, some palaeoliths were found from the river gravel, some 32 km upstream from Pune, and they are now resting in the British Museum. A virgin area near and around us awaits exploration. Only there is a dearth of seekers after truth in stones. I expect that in no distant future adequate provision would be made in our Institute for this kind of study and we shall not be wanting in young students who would zealously roam about the river valleys and mountain scarps and tell us something of the dim past of the Deccan.

The period between A.D. 300-600 requires clarification. While it is true that many of the cave-temples belong to the Śaka and Śatavahana regimes in the Deccan, there are some which do not. In fact we have yet to disentangle these and other monuments of the lesser dynasties that ruled under the Śatavahanas or independently of them, for example, the Chutu Śatakarnis, and Kadambas who preceded the Chalukyas of Badami. For this it is necessary to prepare regional geographies in the manner men ioned previously, and then explore those areas with a view to finding out the monuments of a dynasty, a few references to which may be found in its inscriptions. Some monuments of the early Kadambas were thus discovered by Father Heras and Mr Moraes.

In the 6th century we find the Western Chalukyas in the Karnataka. Many of their monuments are fortunately dated and their geographical distribution known. Mangaleśa carved out the Vaishnava cave at Badami in about A.D. 570. Pulkeśin II patronized the Jaina temple at Aihole, an event immortalized by the poet Ravikirti in an inscription from that place; whereas Vikramaditya II built the famous temple of Virūpāksha at Pattadkal for his chief queen after he took Kanchi in A. D. 734. All these monuments are situated in the Bijapur District.

What remains to be done in the study of these monuments is the preparation of a clear and detailed analysis of the architecture, sculpture, iconography; secondly, the tracing out of the cultural influences of these monuments, and lastly the exact identification and reconstruction of the Puranic mythology as portrayed in the caves at Badami and the temple at Pattadkal.

The Western Chalukyas were ousted from the Deccan and Karnataka by the Rashtrakutas in A.D. 750. Their only monuments known so far are the caves at Ellora, particularly the Kailasa, which was excavated during the regime of Krishna I. Detailed descriptions of these caves appeared in Burgess' Archaeological Survey of Western India Series and *Cave Temples of India*. Since then numerous works have appeared, each using some part of the material according to its requirements. But we do not still know the archaeology of the Deccan during the Rashtrakuta period; that is between 750 and 970 A. D., embracing the architecture, sculpture, iconography, weapons, tools, dress, etc. as portrayed in the caves at Ellora. A memoir embodying these particulars with accurate sketches of the things mentioned above will not only be useful in itself but will be also useful for comparing the results with those from outside the Deccan.[1]

What of the structural remains of the Rashtrakutas ? They have been found so far neither in the Deccan nor in Karnataka, because they have been sandwitched between the two layers of the monuments of the earlier and later Western Chalukyas. They could be extricated only by the process referred to above. With regard to the Kadambas. I have myself collected all the necessary material from their inscriptions, but the actual field work remains to be done.

The Rashtrakutas were again succeeded by the Western Chalukyas in the 10th century. On their becoming weak in the 12th century the supremacy over the Deccan passed into the hands of their feudatories, the Yadavas of Devagiri.

This was a period of rapid changes in the Deccan as elsewhere in India. Moreover, a new political and cultural force, viz. Islam, had begun to spread in India. We have therefore, to examine and demarcate clearly not only between the monuments of the different dynasties in the Deccan but study also the effect of the Muslim impact on the style of monuments.

The problem with regard to the later Western Chalukyan monuments is first to spot them out from amongst the Rashtrakuta, Yadava and Hoysala monuments in the Deccan and Karnataka; secondly to compare their style with that of the early Chalukyas at Badami and Pattadkal, and thirdly to look out for the effect of the Muslim influence, if any.

Some monuments of the Yadavas clearly betray the effect of the Muslim contact. But we have to see when exactly the Muslim influence began to make itself felt on the

1. Since writing this considerable work has been done towards the preparation of a memoir on The Rashtrakuta Archaeology by my Department.

Deccan monuments, and then to set out on stylistic ground the chronological developments of the monuments subsequent to this impact. In short we have to examine the application of the term 'Hemandpanti,' which is popularly and even archaeologically applied to the monuments of the Deccan after the 10th century. We made a small beginning in this study by taking up the examination of the so-called Hemadpanti monuments in the Pune District, the results of which may be briefly narrated here.

Our study began with a first-hand examination of the temple at Ambarnath, which though outside the Pune District, has the advantage of being dated. This temple cannot be called 'Hemadpanti' in the true sense of the word, but other temples, for instance, at Balsane and Patna in the Khandesh District seem to be its early works.

In the Pune District we examined two monuments which have not been examined before. The first was the temple at Pur, some 2 km West of Junnar, near Nanaghat. It is not fully Hemadpanti, but like the temple at Balsane, it is a late Yadava work of the 13th century; the other was a step-well at Belha, 21 miles (33 Km) south-east of Junnar. This is also of the Yadava period, but it may be a little later than the temple at Pur.

So far no monuments of this nature of the Yadava period were discovered in the Pune District; but these finds point to the necessity of a further exploration of the District, an enquiry which is the direct result of a regional study.

Going further down the south, geographically as well as chronologically, we come to South Karnataka and Mysore, the countries watered by the Krishna, the Tungabhadra, and the Kaveri. Here the Mysore Archaeological Survey has been working on the lines indicated in this paper, and the results also are published in great detail. Therefore, with some more study we could know the whole archaeology of the Hoysala period, for instance. Only the monuments of the Gangas of Talkad, which are buried under sand dunes on the Kaveri, await the spade of the archaeologist. These mounds when excavated are expected to carry us back to the 5th century A. D.

With the Hoysalas we take leave of the so-called ancient monuments in the western South. For the monuments at Vijayanagara, Bijapur, Ahmadnagar, Golconda, and Srirangapatna, for example, usher in the medieval period. But I shall make a few comments on their architectural style when I show the illustrations.

Turning now to the eastern side of south India, we have to first consider the monuments of the Andhradeśa. Barring the megalithic monuments of prehistoric type, the other early monuments so far found are Buddhist. They are all situated in the lower basin of the Krishna. Of these, those which stand out prominently are the remains of *stupas* and monasteries at Amaravati, Jagayyapetta and Nagarjunakonda, all built during the rule of the Andhra and Ikshvaku dynasties, between the 1st century B.C. and the 3rd century A. D. Burgess published his reports on the first two in 1883, whereas the last, Nagarjunakonda, was discovered as late as 1928 and the report on it published in 1936. The published material has been used for various purposes. But we have still to see a

work or works which will arrange the sculptures chronologically on stylistic grounds and then analyse them with a view to getting as much light as possible on social, religious and other aspects of the life of the period;[1] and finally examine the cultural influences on its art by comparing these with those obtaining in Northern, Western and Southern India and even the contemporary Roman art. For Indo-Greek influence is visible in some sculptures found at Nagarjunakonda, whereas there is ample evidence to show that there was a commercial contact at least between Greece, Rome and the eastern coast of south India.

This study accompanied by that of the inscriptions of the various dynasties of the region, as pointed above, will also enable us to trace the dynastic and regional distribution of the monuments in the Andhradeśa. At present we have only a scanty knowledge of the dynasties that ruled there.

The above remarks hold good in the case of the monuments of the subsequent period also. As yet we know nothing of the monuments of the Eastern Chalukyas who ruled in this part from the 7th century onwards.

Proceeding southwards we meet with the monuments of the Pallavas in Tondaimandalam of the *Sangam* classics and of later inscriptions. Several aspects of these have been minutely studied by Rea, Longhurst, Jouveau-Dubreuil, Vogel and by Dr Miss. Minakshi of Madras. What we have now to see is whether the regional distribution of the Pallava monuments could be extended and whether elements of their architecture, sculpture, cults and iconography could be traced back to their sources. Certain aspects of the later monuments of the further south, at Thanjavur and Madurai for instance, which are the works of the Cholas[2] and the Nayakas of Madurai, have also been studied by Jouveau-Dubreuil, but others, which I have already mentioned before, still await a detailed study.

In order to do this I took up the study of the monuments at Bhairavakonda, situated to the north of the known Pallava monuments, the result of which I will discuss presently.

Bhairavakonda is 28 km N. West of Udayagiri in the Nellore District of the Andhra Pradesh. There, in the upper end of a ravine, a number of temples are carved, whereas in a stone-built temple, over a pillar, is carved a rude image of Bhairava. Hence the entire hill is now called Bhairavakonda, or 'the hill of Bhairava.'

The rock-cut temples which are situated at the south end of the sloping rock facing the little Bhairava temple form the subject of the study.

1. Recently Mr A. V. Naik, a student of my Department, has studied in great detail certain aspects of the Nagarjunakonda Sculptures. It is published in *BDCRI*, Vol, II, pp. 50-118.
2. Detailed study of the development of the Chola temples from those of the Pallavas requires to be attempted. In this, much help can be derived from the work done by the Archaeological Department of the Pudukottai State (Now a district of the Tamil Nadu State Ed.).

There are in all eight such temples. It appears that some of them were excavated first, others afterwards. Longhurst, who discovered them in about 1916, thought these temples were excavated by the early Pallavas, who passed through this region when they were driven out of the Andhradeśa by the Chalukyas in the early years of the 7th century.

All the temples are of Śiva, who was worshipped there in the form of a *linga*. Temples Nos. I to IV have a small square shrine, with an open terrace in front, which must have been enclosed with a thached roof, supported on wooden pillars.

The shrine and the terrace are devoid of any architectural ornament, excepting 'two narrow flat bands all along the architecture spanning the facade and two vertical bands encasing the doorkeepers in niches.'

New features appear in temples Nos. V, VII, VIII. In the first place they all have a rock-cut porch with pillars in front, besides the square shrine.

In addition to this, the facade of the porch is ornamented with *Chaitya* windows, animals, dwarfs, etc.

All the temples have on either side of the doorway a doorkeeper, whereas all the temples, excepting No 3, have got the figure of a Nandi facing the shrine in the terrace or the porch.

Barring temple No. 2, figures of Brahma and Vishnu beside the doorkeeper on either side, whereas figures of Śiva and Ganeśa are carved on each of the terraces in all the temples, and similarly a *linga* of Śiva in temple No. I, while on the back wall of the shrine immediately the *linga* in Temple 4 is cut out an image of Śiva with three faces.

These facts about the temples at Bhairavakonda I have first analysed in detail under four heads :

1. Architecture.
2. Sculpture of human and animal forms, and architectural designs.
3. Cult.
4. Iconography.

Secondly, I have studied them critically and compared them with those available in contemporary monuments, particularly of south India.

Of this study I propose to read out the results of my inquiry on two points only, viz. cult and iconography, for these, I think, will interest you.

With regard to the cult it may be noted that the cult-image is invariably a *linga*. In majority of cases it is made of black basalt, detachable and not carved out in the granite rock as the *yonipīṭha* is. Why should this be so and why should the *linga* be made of another kind of stone, requires to be investigated. It may have some significance, for the stone is not available there. It has to be brought from a great distance.

A similar practice we noticed at Vijayanagara. There, though the temples are constructed of granite, the cult-images were usually of a dark green chlorite stone.

Excluding the first temple (which faces the north, because the rock is so situated), the orientation of all the temples is towards the east.

This result is important because in my studies of the temples in Gujarat, Deccan and Karnataka, I found that the temples of Śiva as a rule, face the east or west only. When temples of other regions will be studied in this way, we shall arrive at a very interesting and illuminating conclusion.

As regards the position of deities, a figure of Ganeśa is found sculptured on the south side of the terrace wall, and that of Śiva on the north.

But unlike in later temples, Ganeśa is not to be found on the door lintel of the shrine chamber. This fact points to some important conclusions. First, that Ganeśa was not, then, regarded as a Vighneśa, or Mangalamurti to be placed in the most important position in a temple next to the shrine. Nay, he did not form the integral part of a temple, either of Śiva or of Vishnu, for on examining his figures it appeared to Longhurst that in some cases the figure was a later addition.

This is also the case in a fifth century temple of the Gupta period found at Bhumara in Central India.

When and how Ganeśa came to acquire the position he holds now, viz. of a Mangalamurti, that he is to be worshipped on every new occasion should be investigated through archaeology and literature.

The position of Śiva in these temples needs a careful consideration. Apart from *linga*, which forms the cult-image everywhere, his images are found :

Firstly, in a niche, on the north side of the terrace wall; secondly, behind the *linga* on the backwall of the shrine in temple No. IV.[1]

Now we may ask as to why Śiva figures are carved in these positions in these temples. Those in the outer hall may be decorative figures, but not the one on the back wall of the shrine, where he is represented with 3 faces. Neither in contemporary temples from other parts of India, nor in the later temples also do we find a Śiva figure in this position, excepting in some Pallava temples, where we notice not exactly this figure but a Śomaskanda image, that is, Śiva and Parvati with the child Skanda between them.

Is the practice which is peculiar to Pallava and later south Indian temples alone, arisen out of the early practice of carving Ekamukha or Chaturmukha *linga* which we notice in the Gupta temples in Central India or is it due to a special type of Śaivism prevalent in south India at an early period ? A study of early Tamil classics might reveal the reasons for this feature of Bhairavakonda and Pallava temples.

The position of the figures of Brahma and Vishnu in the temple is also interesting. Excepting temples Nos. II[2] and III a figure of Brahma is found on the proper right or the

1. Longhurst, A.H., *Pallava Architecutre*, MASI, 17, p. 34.
2. *Ibid.*, p. 33.

south side of the shrine containing the *linga* and Vishnu on the north side.

This shows that in early Śiva temples, these deities were represented, but they were not intrinsic to a Śiva temple. For in temples Nos. II and III their figures have been omitted, owing to lack of space.

It may be also worth while inquiring, why Brahma's figure should always be on the south and Vishnu's on the north side of the shrine.

Have the texts on temples anything to say on this point ?

For the study of iconography we get in the Śaiva pantheon figures of: Śiva, Nandi, Ganeśa and Durga.

In that of Vaishnava of Vishnu alone and in Brahma of Brahma only.

Śiva is found represented in three ways :

first in the form of a *linga*,

secondly, with three faces behind the *linga* in temple No. 4,

thirdly in *padmasana*, with four arms in a niche on the north side of the terrace wall.

Unfortunately the photos of figures 2 and 3 are not separately published, so it is not possible to study them in detail. For the present it may be remarked tentatively, from the evidence available, that the purely Śiva pantheon was either not fully represented or was developing in this part of south India.

Much cannot be said either on Vaishnava or on Brahma iconography with a single figure from each pantheon. Brahma and Vishnu in all the 6 or 7 cases are shown standing, and since the weapons in their hands do not show flames as do the later cases from the known Pallava temples, it appears that these figures are early.

To sum up our evidence on the different aspects selected for study :

With regard to the architecture of a Śiva temple we learn that the temple was square or rectangular in form, decorated with some motives which are found in the earlier Buddhist architecture of the Andhradeśa, whereas some motives, the doorkeeper, for instance, were new.

In sculpture the figures of doorkeepers and squatting lions show certain features which require further examination and study. As to the Śiva cult we noticed that its essentials were :

1. a *linga* on a *yonipīṭha* in the shrine chamber;
2. a Nandi facing it in the porch or outer hall;
3. doorkeepers with peculiar head-dresses.

Other features e.g., a *pradakshina-patha*, were still to come; whereas figures of Ganeśa, Śiva, Brahma and Vishnu were represented if space permitted, but they were of secondary importance.

As to iconography it seems to be in an undeveloped stage.

When we compare this evidence as to Śiva cave temples at Bhairavakonda in the Nellore District with similar temples of the Pallavas further south and those of the Chalukyas at Badami, we find that the Bhairavakonda temples seem to be the fore-runners of the Pallava temples and may be the work of the early Pallavas; secondly, the Bhairavakonda temples are not only primitive but in some ways different from the Śiva cave temple at Badami, where the Śaiva pantheon, for instance, is not only found in a developed but a highly conventionalized stage, postulating a long tradition and experience in rock-carving.

What is the cause underlying this regional difference ? Is it due to the fact that the Bhakti-cult in Śaivism developed late in the eastern part of south India than in the western ? And finally from where did the Pallava artists draw their inspiration for the Śaiva pantheon as found at Mahabalipuram and Kanchipuram, for instance ? From the Chalukya contact or was it an independent development encouraged by the Śaiva and Vaishnava saints of the Tondaimandalam ? These are the problems which further studies are likely to throw illuminating light.

HISTORICAL GEOGRAPHY FROM INSCRIPTIONS : A REVIEW

1. Introduction

Hitherto, scholars, since Cunningham, have attempted to reconstruct the geography of ancient India by identifying the places mentioned by the Chinese pilgrims, Fahien, Hiuen Tsang and I-Tsing, and countries, rivers and hills occurring in the Puranas and epics, and Buddhist and Jaina literature. Villages and other territorial or administrative units referred to in inscriptions were occasionally identified by editors of inscriptions. All these attempts have in the course of a century considerably enlarged our knowledge of the political geography of ancient India, say from about 300 B.C. to 1300 A.D.

The writer, however, felt the absence of a sustained continuous history of any particular region. Not only the attempts were disjointed, but in a number of cases, the editors of inscriptions have left out the identification of villages and other units for want of data and maps.

2. Inscriptions of Gujarat

This need he sought to supply by taking up the study of inscriptions of Gujarat. While doing so, the pre-requisites for a fuller study were clearly enunciated. What is required is that :

(1) the village donated;

(2) the larger unit of which it forms a part;

(3) its boundaries; and

(4) the place or part from where the grant is made, should be given. Further, these details we should have for a certain unit, for a number of years, and not once in a while, and secondly not for one unit only but all the contiguous units so that we can form a correct idea of the limits of each unit.

3. Political Geography of Gujarat

Thus a fairly detailed political geography of Gujarat (including Saurashtra) for a period of 1,600 years when the various dynasties—the Mauryas, the Kshatrapas, Guptas, etc.,—ruled over the whole or over parts of the territory could be reconstructed. But of this long period only the history of the administrative units during the Chalukya or Solanki period could be had in much better details than that of any other dynasty. So this is abstracted here from my book *Studies in the Historical and Cultural Geography and Ethnography of Gujarat*.

4. Researches on Political Geography of other states

Later, such studies were undertaken under my guidance and suggetion for the

Deccan[1] (including parts of Maharashtra and north Karnataka), Madhya Pradesh[2] (former Central Provinces), Rajasthan,[3] Uttar Pradesh[4] and south India[5] by Smt Sumati Muley, Smt Shobhana Gokhale, Shri K. L. Lele, Smt Madhur Mohini Mathur, Shri T. K. Sheshadri and Shri B. Suresh,[6] respectively. Except the last who is working on the numerous Chola records spread over the far South, the remaining five studies have been completed; still the works are not published (their copies can be consulted in the Library of the University of Poona and the Deccan College). I am, therefore, grateful to the authors of the first two for allowing me to abstract here such portions as were found useful for this contribution.

TERRITORIAL OR ADMINISTRATIVE UNIT OF CHALUKYAS OF GUJARAT

5. Geographical limits of Chalukya Empire

It is well-known that Mularaja, overthrew the Chavadas or Chapotkatas and established himself in their kingdom. The kingdom is tradionally called Panchasar; its capital being Anahilapataka (Anhilvad). This is now sandwiched between Radhanpur and Hariji-Patan Mahals of the former Baroda State. The earliest Chalukya inscription calls this territory Sārasvata-*maṇḍala*, the "province" formed by or in the Sarasvati valley. Such a small, semi-arid country could hardly satisfy an ambitious and powerful General like Mularaja. He thought of subjugating his neighbours. The circumstances were favourable for this venture. For the Gurjara-Pratihara Empire was tottering to pieces, or had already gone and he was probably one of its surviving Generals.

So having established himself in the Sārasvata-*maṇḍala* he conquered Satyapura-*maṇḍala* that is, the country to the north of the Sarasvati valley, the territory round about modern Sanchor, in the Jodhpur or Marwar State; thus linking up Anhilvad once again with Bhinnamala and parts of parent Gujarat.

Mularaja's son Bhima I acquired Kachha-*maṇḍala* i.e., Kutch, and Karna, his son and successor annexed Lata-*maṇḍala*. Jayasimha Siddharaja conquered Surāshtra-*maṇḍala*, Avanti, Bhailasvami-mahadvadasaka (that is the whole of Malwa), Dadhipadra-*maṇḍala* (i.e. modern Panch Mahals District with Dohad) and some *maṇḍala* (not named), in Rajasthan camprising Jodhpur and Udaipur States. His successors Kumarapala and

1. Muley, S., *Studies in the Historical Geography and Ethnography of the Deccan*, Ph. D. Thesis, University of Poona, 1954.
2. Gokhale, S., *Studies in the Historical and Cultural Geography and Ethnography of Madhya Pradesh*, Ph.D. Thesis, University of Poona, 1960.
3. Lele, K.L., *Studies in the Historical and Cultural Geography and Ethnography of Rajasthan*, Ph.D. Thesis, University of Poona, 1962.
4. Mathur, M. M., *Studies in the Historical and Cultural Geography and Ethnography of Uttar Pradesh*, Ph.D. Thesis, University of Poona, 1963.
5. Sheshadri, T.K., *Studies in the Historical and Cultural Geopraphy and Ethnography of south India with special Reference to Pallava Records*, Ph.D. Thesis, University of Poona, 1963.
6. Shri Suresh is working on Chola recrods.

Ajayapala retain their hold over these far-flung provinces constituting modern Gujarat, Kathiawar, Kutch, Malwa and southern Rajasthan. Later rulers, Bhima II, Viradhavala and others' control over Malwa, southern Rajasthan and even Lata was precarious. It was often challenged and at times wrested by the Paramaras, Chahamanas and Yadavas of Devagiri. Nevertheless till the very end, (A.D. 1296) Kutch and Kathiawar remained part of the Chalukya Empire, the core of which was northern Gujarat.

6. Territorial Divisions of Chalukya Empire

A *maṇḍala*, it would appear, was the largest territorial division, corresponding to a modern "province", though at times Lata and Surashtra are called *desas* and Gurjjara (the whole of Gujarat ?) a *maṇḍala*. But this may be, while referring to Surashtra or Lata, in a certain independent context. Their position in the empire was that of a *maṇḍala* or a province.

The units smaller than the *maṇḍala* were the following in a descending order: *vishaya*, *pathaka*, group of villages and a village. Ordinarily the limits of a *vishaya* and those of a *pathaka* were fixed, but at times what was once a *vishaya* was called a *pathaka* and vice versa.

Absence of units like *āhāra*, *dranga*, *sthali*, *prāpa*, and *prāvesya* which were current during the Valabhī period is surprising, and can be explained either on the score of insufficient evidence from Kathiawar, or on the ground that these units were a special feature of the Maitraka administration, which became obsolete after their fall.

However, the units *maṇḍala*, *vishaya* and *pathaka* coming down from a hoary antiquity, lasted all through the Chalukya (Solanki) period until the advent of the Muslims. And it is remarkable that the term *maṇḍala* was used at this period exactly in the same sense, viz., that of a province or state, either independent or vassal, as described in the *Arthaśāstra* of Kautilya.

We have seen what different units constituted the Chalukya or Solanki empire. Let us go over them again with a view to fixing their boundaries.

7. Identification of the Mandalas

The very first *maṇḍala* to be mentioned is the Sārasvata *maṇḍala*. It is a pity that so far there is only one reference to it, but in the absence of any contradictory evidence I am inclined to think that this *maṇḍala* at the zenith and even till the very end of the Chalukya power, included most of the Mehsana or Kadi *prānt* of the former Baroda State plus probably the former States of Radhanpur, to the west of Patan or Harij *mahāl* and Palanpur in the north of Patan and Siddhpur *mahāls* and minus the Dehgam and other *mahāls* of the State. Roughly the *maṇḍala* formed the portion between the north-east to south-west flowing Banas and the north-south-west flowing Sabarmati. The northern most point was perhaps Dhāṇada, the capital of the Dhāṇada-*āhāra pathaka*, and the southern most Līlāpura or say our present Viramgam. The second *maṇḍala* was

the Satyapura-*maṇḍala*. Only its capital (?) Satyapura can be definitely identified with modern Sanchor[1] in the Jodhpur State. There are no other references to it, nor many references to the subdivisions contained within it, so that its probable limits cannot be given. It might have encompassed most of the present Jodhpur State.

The Kachha-*maṇḍala* stands for the former State of Kutch, but it is not absolutely certain if the Surashtra-*maṇḍala* throughout the Chalukya period, stood for the whole of Kathiawar, or merely for its southern portion.

Identification of the few places occurring in inscriptions shows that at least the southern half of Kathiawar was included in Saurashtra-*maṇḍala*. Perhaps Dhavalakka (Dholka) which is once said to be in the former Gurjjara-*maṇḍala* formed the northern most point of this *maṇḍala*. But I cannot be specific.

8. Khetaka Mandala

Three other *maṇḍalas* present a similar difficulty. We do not know whether their boundaries overlapped or not. These are the Latas Narmadātata and the Dadhipadra *maṇḍalas*. There is no reference to the Khetaka-*maṇḍala* which occurred so frequently during the Rashtrakuta period. But if its boundaries were the same as gathered from the Paramara and Rashtrakuta records, viz. with Modasa in the Pranjtij Taluka and Jambusara in the Broach district, then it would appear that the Sabarmati was the N.E.-S.W. boundary of the Khetaka-*maṇḍala* separating it from the Sārasvata-*maṇḍala* and the Mahi was the N.E. and S.W. boundry in the south. How far eastwards it extends we cannot say for certain.

9. Lata Mandala

From the Mahi or Narmada downwards extended the Lata-*maṇḍala* including the country along the coast and reached as far as Navasari, or the river Purna.

10. Narmada-tata Mandala

The inland country east of Dabhoi, which according to an inscription once formed part of the Gurjjara-*maṇḍala* covering most of the valleys of the Narmada and its tributaries : the Orsang, the Hiran and the Karjan, now forming the eastern half of the Baroda *Prant*, and some parts of the Rajpipla and perhaps the Chhota Udaipur and and Baria States, might have constituted the Narmadā-taṭa-*maṇḍala*. Unless more material comes forth either in the shape of Chalukya records relating to this region, or of their contemporaries, particularly the Parmaras who often controlled this region, the eastern, northern, and southern boundaries of this *maṇḍala* cannot be fixed.

11. Dadhipadra and Godrahaka Mahamandala

The above remarks would hold good of the Dadhi-padramaṇḍala also. It must lie north of the Narmadā-taṭa-*maṇḍala*. What we know for certain is that Godrahaka

1. Since all these work were undertaken and completed before the merger of states, the names have been retained.

(Godhra) stood on the eastern frontier of the *maṇḍala*. And the whole of the *maṇḍala* most probably acted as a buffer state between Gujarat and Malwa.

Malwa was represented once by Avanti-*maṇḍala* and once by Bhāilasvāmi-12-*maṇḍala*. If Avantī is identified with Ujjain, and Bhāillasvami with Bhilsa we have a fairly large region stretching roughly from longitude 76° to 78°.

From this detailed survey the following approximate equivalents may be proposed.

Sārasvata-*maṇḍala*	=Former Mehsana (Mahesena) *Prant*, Radhanpur and Palanpur States minus Dehgam Taluka.
Satyapura-*maṇḍala*	=Jodhpur State.
Khetaka-*maṇḍala*	=The districts of Ahmedabad, Kaira (Kheda), and northern part of Broach (Bharuch) District.
Lata-*maṇḍala*	=Southern half of Broach district, Surat district and the northern part of Thana district.
Narmadā-taṭa-*maṇḍala*	=Eastern part of the Broach (Bharuch) district, the territory on either side of the Narmada, comprising parts of Rajpipla State, and Sankheda Taluka.
Dadhipadra-*maṇḍala*	=Most of the Panch Mahals district, and probably parts of Jhabua, Ratlam and other States.
Avanti and Bhāillasvāmi-12-*maṇḍala*.	=Malwa.

12. Sarasvata Mandala and its Subdivisions

Of this extensive empire, I am able to work out the further subdivisions and their divisions in the case of one *maṇḍala* or province only. This is the Sārasvata-*maṇḍala* which I have called "the home province of the Chalukyas." It really formed the back-bone of the empire as it forms of real Gujarat even now. Of course we cannot ignore Baroda and Surat. But both culturally and materially Ahmedabad holds the place which Anhilvaḍa held during Chalukya period. For this Ahmedabad should be grateful to its Sultans.

A *maṇḍala*, i.e., a province, was usually divided into *vishayas* i.e., districts, and the latter into *pathakas* i.e., taluka or *mahals*. Though this was the practice we find mention of only two *vishayas* : Varddhi and Gambhutā. Both these are mentioned in early inscriptions only. Gambhutā-*vishaya* is referred to in an inscription of Mularaja and Varddhi-*vishaya* twice, once in an inscription of Mularaja and once in that of Bhīma. Gambhutā is identified with Gāmbhu on the Pushmāvatī in the Chanasma *mahāl* of the Mehsana (Mahesana) *Prant*. Varddhi, was identified by Bühler with Vaddhiar, the name

of a tract lying between the Radhanpur and Baroda State borders. I do not agree with the identification, because it is not linguistically correct. However, there is no doubt that the Gambhutā-*vishaya* lay to the south of the Sarasvati river; and the limits of the Varddhi *vishaya* extended as far as the Banas in the north. What the exact boundaries of these *vishayas* were we do not know for want of more and detailed information.

Subsequent records of the Chalukyas and Vaghelas do not refer to any *Vishaya* in this Sārasvata-*maṇḍala*. Both Varddhi and Gambhutā are called *pathakas*. Why this was done we cannot say. It would appear that it was found advisable for administrative and other purposes to divide the whole *mandala* into a number of smaller units, called *pathakas*.

Thus we meet with the names of seven *pathakas* : viz. Chālisā, Daṅḍāhī, Dhāṇada, Gambhūtā, Vālauyao, Varddhi and Vishaya. Identification of the place-names within these *pathakas* has enabled me to determine with more or less certainty the limits of each *pathakas*, and lead me to think that these *pathakas* between themselves covered almost the whole of the Sārasvata *maṇḍala*. I will briefly mention the details about each *pathaka* and its limits.

13. Dhanada-Ahara Pathaka

I would first take up the Dhānada Āhara-*pathaka* which is the first *pathaka* to be mentioned as such, and which formed the northernmost part of the Sārasvata-*maṇḍala* An inscription published some years ago tells us that Bhīma I while ruling the Dhāṇada-Āhāra-*pathaka* granted the village of Varaṇāvādā. Most luckily we can identify both these places, the village granted, and the capital of the *pathaka*. Dhāṇada is Dhānda, about 16 km east of Palanpur. Even now it seems to be a big place, larger than the surrounding villages. Varaṇāvādā is Varnvāḍa about 48 km south of Dhāṇḍa, viz. Chhīṁdriyāla-*grāma* and Vārasavalī cannot be located. Probably they have disappeared now. Though this is the only reference to this *pathaka*, we can roughly fix its boundaries by plotting other *pathakas*. According to Mirza Muhammad (whose father was Waqa'-i-nigar, or Chief Reporter under Prince Jahander Shah of Gujarat in 1708 A.D., the author himself becoming the Dewan of the province in 1747 A.D.), the author of *Mirāt-i-Ahmadi* (Supplement, p. 206), the area covering Palanpur, Deesa, and Santiwara was in former times called Dhandar, which must be the same as our Dhāṇada.

14. Dandahi Pathaka

The *pathaka* immediately south of the Dhāṇada-Āhara *Pathaka* was called Daṇḍāhi-*pathaka*. We have had two references to it : one in the time of Tribhuvanapala, a stop-gap king who ruled for a few years during the chaos, dated v.s. 1290. Bhima's record refers to Mahisāṇā-*grāma* which is no other than our Mehasana, (Mahesana) a railway junction and the chief town of the *prant* and taluka of that name. While this record gives a few details only some of which can be satisfactorily identified, Tribhu-

vanpala's record, while granting the village Bhāmsara gives its boundaries in great details, even mentioning the places in the sub-divisions. In all 12 places are mentioned and fortunately all these can be identified. Thus Bhāmsara is Bhākhar To its north lay Dāsayaja and Kambali. These are Ḍāsaj and Kambali, north-west of Bhakhar. To the east were Kuralī and Dāsayaja. Of these Kurali cannot be identified. I suspect that its place has been taken away by Ranchhodpura, which by its name is a new place-name. In the south stood Kurali and Tribha. Of these Tribha is Tarabh, about 3 km south-south-east from Bhakhar. To the west were Arathaura and Unjha. These are respectively Aithor, 3 km south-west and Unjha, 32 km south-west of Bhakhar.

The same inscription grants another village, Rajapuri, to the north of which was Nandavasana, to its north-east, Kuila, to its east Kulāvasana and Dangarua, to its south-east Chandavasana and Indrāvaḍa to its south Āhirana and west Sirasavi and Nandāvasana and north-west Sirsavi Untauya. The scribe or the writer has made a slight mistake in indicating the directions of some of the places. But out of the 12, 10 places can be still located. These are in the order following the above, Rājpur, Nandāsan, Kiol, Jhulasan, Dāngarwa, Chandāsan Idrād, Irāna Sarsav, and Utaw respectively. All these villages (*grāmas*) are within a radius of 3 to 5 miles from Rajpur. We are told that the first 10 places were situated within the Daṅḍāhī-*pathaka* and the 12 mentioned subsequently, while granting Rajāpuri in the Vishaya-*pathaka*. This is the only reference to this *pathaka*. But the places within these *pathakas* determine the latter's position and extent. Perhaps both these *pathakas* are referred to in the Praśasti[1] of a palm-leaf manuscript of Mahapuritha Chariya written during Kumarapala's reign in v.s. 1227.[2] That Daṇḍāhi was once the name of a sub-division is mentioned in the Mirāt-i-Ahmadi (Supplement, p. 206). There we are told that "In the kingdom of Gujarat most areas are specially named, and wonderful stories are told about their origin of those names. (Thus) Danda (included) *Pargana* Kadi and its neighbourhood."

The places in the Daṇḍāhī-*pathaka* lie partly in the modern Sidhpur, Visanagar and Mehsana (Mahesana) *mahals* while those in the Vishaya-*pathaka* like in the Kadi *mahal*.[3] But I believe that the river Khāri was the northernmost boundary of the Vishaya-*pathaka*, its southern boundary probably being the Sābarmati. Indrāvaḍa, Indrād and Chandavasana (Chadāsan) or perhaps Kalol stood on the southern frontiers. For the territory south of Kalol, extending as far as the Sābarmati constituted another unit, called the Chālisa-*pathaka*. We glean this fact from an inscription of Bhima II dated V.S. 1283. While governing Chālisā *Pathaka* he granted the village of Natāülī to the

1. This is now Identified by Dr. H. G. Shastri with Karali, about 4.8 km of Bhakar. See Shastri, H.G., "The location of the Dandahi Pathaka, *JOIB*, Vol. XI, 1961-62, p. 279.
2. Sri Jinavijayji munī, (Ed.) *Jaina Pustaka Prasastisamgraha*, Sindhi jain series, No. 18, (Bombay 1942), 110.
3. Shastri, *op. cit.*, suggests that this *pathaka* lay not to the north but to the south of Vishaya *Pathaka* which is (now) represented by the Sidhapur taluka in the north.

north and west of which were situated Vadasara and Omkurāla *grāmas* and to the south Avayāṇija and Chuyāmtija. Of these Vadasara is Vadsar in the Kalol *mahal*. To its south lie Khatraj, Pethalaj and Samtaj which evidently occupy the position of Avayāṇija and Chuyāmtija. The ending-ja of the old and the modern place-names suggest that these places are related to each other.

14. Chalisa Pathaka

Chālisā after which the *pathaka* was named is perhaps represented by Chalisan or Chalasan, now the northern-most village in the Kadi *mahal*. If this identification turns out to be correct, then the Chālisa-*pathaka* comprised partly the present Kadi and Kalol *mahals*.

15. Varddhi Pathaka

To the west and north-west of this *pathaka* was situated the Varddhi *pathaka*. From the identification of the places mentioned in four records, one of Jayantasimha dated v.s. 1280, two of Bhima II dated v.s. 1295 and 1296, and one of Viśaldeva dated v.s. 1317 this has proved to be the best worked out *pathaka*. Not only we know well its four boundaries, but practically all the places fall within it during the Chalukya period.

It is not necessary to mention all the places. It would suffice if I refer to some of the important places whithin it.

16. Capital of Varddhi Pathaka

The capital or chief town of the Varddhi-*pathaka* from which a number of grants were made was Maṇḍalī. It is difficult to identify with certainty whether this Maṇḍalī represents Māṇḍal in the Viramgam Taluka or Maṇḍalī of the Chansma *mahal*. One record of Bhima II cites one maṇḍalī as a place situated to the west of Ghūsaḍi village in which were built the temples of Vīrameśvara and Sūmaleśvara. At this place now stands Māṇḍal. Topographically Māṇḍal seems to be the old capital, while in favour of Māṇḍalī of the Chanasma *mahal* we have nothing but identify of name. The author of the *Mirāt-i-Ahmadi* (Supplement, p. 164), while giving details about the *Pargana* Viramgam, or Jhalawar says, "In former days the chief town was Māṇḍalī then the headquarters were removed to Viramgam." This would show Mandal's identification with the Māṇḍalī of Chalukya records is correct, and that even after the Chalukya period Māṇḍalī had ramained the chief town of the unit

17. Old Name of Viramgam

Viramgam itself, the chief town of the taluka of this name and the frontier town on ancient Kathiawar-Gujarat junction, is a comparatively new place though the site occupied is probably very old. Even during the Chalukya period the place was known as Ghūsaḍi *grama*. Even when Bhima built the temple of Virāmeśvara there, a Śiva temple named after Virama. the place was called by its old name. Subsequently

however, the old name was forgotten. Now we know it as Viramgam, evidently after the temple of Vīrameśvara

This Ghūsaḍi or Viramgam formed perhaps the southern outpost of the Varddhi-*pathaka* and stood on the royal highway to Kathiawar, as it does now. The inscription specifically says that the Rajamarga lay to its east and south. All the places to its north—Bhojuyā, Kāliānā, Nānā-Ubhaḍā, Dheḍāsan, for instance, are mentioned; the two latter are called Laghu-Ubhaḍā and Theḍhavasaṇa respectively. Leaving other places in the interior I would mention the places on its northern end. These were Sūrayaja, Ādhivāḍā, Sāmpavāḍa, Salakhaṇapura, Vahichara and Hamsalaspura. All these are represented by Suraj, Sāmpavāḍa, Ādhivāḍā, Sankhalpur, Behcharaji, and Hasalpur respectively.

18. Geographical boundaries of Varddhi Pathaka

The Varddhi-*pathaka*. thus covered almost the half of the Chanasma *mahal* and the Viramgam taluka. The sangama of the Khari, Rupen and Pushmāvati constituted its northern end. The southern end included besides Viramgam, the villages of a Līlāpura, Karira and Malakatari. For, at the first-mentioned place, Lilapura, Liladevi daughter of Samarsimha and wife of Bhima II had built the tamples of Līleśvara and Bhimeśvara, named evidently after herself and her husband. All these villages are situated to the south of Viramgam. Lilapura has retained its original name, while the other two are called Karela and Malika respectively.

19. Gambhuta Pathaka

The north-eastern boundary of the Varddhi-*pathaka* is indicated by another unit, called Gāmbhutā-*pathaka*. In all 5 inscriptions mention this *pathaka* but only three inscriptions give details from which we can form an extent of the *pathaka*. An inscription of Mularaja II, dated v.s. 1193, so far the only record known of this king who succeeded Ajayapala is addressed to the officers of the Gāmbhutā *pathaka*. In the address the places Kāroḍā and Bāmbhanavādā are referred to. Villages bearing indentical names still exist in the north-eastern part of the Chanasma *mahal*. Bhima II's inscription of v.s. 1263 and of Jayantasimha mention the villages of Śeshadevatā, Ghāriyāvali, Deulavāḍā, Ḍodiyā *Pāthaka*, Iṭilā, Kalhāri, Phimchaḍi and Vahichara. All these places almost retaining their Chalukyan, 12th-13th century form, lie in and around the Khāri, Pushmāvatī and Rupen doab Dodiavāḍa, 19.2 km south-west of Gambhu the chief town of the *pathaka* and Śeshadevatīgrāma lay on the west south-west frontier of the *pathaka*. We have seen that the village of Kālhari and Vahichara were mentioned while defining the limits of a village granted in the Varddhi-*pathaka*.

Were this all, the Gāmbhutā-*pathaka* would be very small indeed. Fo it would correspond to a little more than half of the Chanasma *mahal*. But I believe that the village of Sandera, Sūnaka and Laghu-Dābhi, which lie in south-east and south-west corners of the persent Patan and Sidhpur *mahals* were originally comprised within the Gambhutā

pathaka, Sūnaka and Ḍābhi touching on the north-eastern border of the pathaka beyond whicd were Unjhā and Arṭhaura of the Daṇḍāhī-*pathaka*. How much due north-wards the *pathaka* extended we cannot say. Perhaps the whole of the present Chanasma *mahal* was definitely included in it. A few miles further north lay the capital of the *maṇḍala* and empire—Anahila-pattana or *pāṭhaka* or-pura, modern Patan Did it constitute a separate unit, like the present Delhi district or was it included in the Gambhutā-*pathaka*? Gambhutā after which the *pathaka* is named is now called merely Gāmbhū. It lies on the left bank of the Pushmāvati river. Another important place in this *pathaka* was Modhera or Mudhera. In the time of Mularāja I it was included in Varddhi-*vishaya*. It was the home of the Brahmanas and Vanikas of that name. And here Karna I had built the famous temple of the Sun, the finest piece of architecture in north Gujarat. The ruins of this temple still exist.

20. Valauya Pathaka

The last *pathaka* that we know of, and probably the last *pathaka* in the Sārasvata -*maṇḍala* is the Vālauya-*pathaka*. Only one inscription refer to this *pathaka*. Here in v s. 1288 Bhima II granted a village, the name of which is lost; west of this village was Rānāvāḍā, now called Rauavaḍa to the north Undirā and Ānganavādā, the present Undara and Ānganavāḍā respectively; to the east Sāmparā and Chhatrāḥarū, the present Sāmprā and Chhatiāra respectively. All these village lie to the east-south-east of the Banas and are included in thé Patan *mahal*. They and the river might have formed the westernmost border of the *pathaka*. Vālauya, the chief town of the *pathaka*, I identify with Bālavā about 12 miles (19.2 km) east of Ānganavāḍa and on the left bank of the small Bahi river. Though no further details are available, I believe that the Vālauya *pathaka* probably included most ofthe northern half of the present Patan and Sidhpur *mahals* and so included all the territory to the east of Dhāṇada-āhāra-*pathaka*.

We had started on our tour of reconstructing the Sārasvata *maṇḍala* and the sub-units within it with this *pathaka*. In arriving back to it we have gone over all the territory lying between the latitudes 23° and 24°, to the west of the Sabarmati river.

It is perhaps significant that no Chalukya inscription has so far mentioned a place east of the Sābarmati river. It not only suggests that the Sabarmati formed the eastern frontier of the Sarasvata *maṇḍala* but that the country to the east of the Sabarmati, though at times within the empire, was always a bone of contention beween the Chalukyas and rulers of Malwa.

Even for a fuller knowledge of the Sārasvata-*maṇḍala* we should have names of places and the name of the *pathaka* which lay within what is now called the Kherālu and Vijāpur *mahals*. So far the place nearest to the Sabarmati known from Chalukya inscriptions is Lāṅganaijya or Langhnaj, the scene of the unique prehistoric finds in India.

21. Short resume of Sarasvata Mandala

Save for this, our knowledge of the Sārasvata-*maṇḍala* is complete. I have already sketched its geographical limits. Politically it comprised the Mehsana *Prant* (minus the Dehgam taluka) of the former Baroda State, parts of Palanpur and Radhanpur States and the Viramgam taluka. The Mehsana (Mahesana) *Prant* is divided into, beginning from the north, 1. Sidhpur, 2. Kheralu, 3. Vijāpur 4. Visnagar, 5. Mehsana 6. Kadi, 7. Kalol, 8. Chānsama, 9. Patan, 10. Harij and 11. Dehgam *mahals*, The last, Dehagam is really an appendage, not forming a homogeneous whole with the other trans-Sabarmati group of *mahals*. Now just consider the number of *pathakas* which constitute the Sārasvata-*maṇḍala* and its modern equivalents.

1. Dhāṇada *Pathaka* = Southern part of Palanpur State,
2. Daṇḍāhī *Pathaka* = Parts of Sidhpur, Visnagar and Mehsana, and perhaps Kheralu *mahals*
3. Vishaya *Pathaka* = Parts of Mehsana and Kadi *mahals*
4. Chālisā *Pathaka* = Parts of Kadi and Kalol *mahals*
5. Varddhi *Pathaka* = Viramgam taluka and parts of Chanasma *mahal* and perhaps of Harji.
6. Gambhutā-*Pathaka* = Parts of Chanasma, Patan, and Sidhpur *mahals*
7. Vālauya *Pathaka* = Parts of Harij, Patan and Sidhpur *mahals*

We shall have at least one more *pathaka* when details of place-names in the Vijāpur and Kherālu mahāls come forth.

22. Sarasvata Mandala and Mehsana Prant

The correspondence between the size of the largest territorial unit and its sub-divisions into *mahals* in northern Gujarat, of Gaikwads of Baroda and the Chalukyas of Anahilapāṭaka is pretty close. If the former have inherited the territory of the latter, have they also unconsciously inherited their administration system? No less than 5 centuries separate the two rulers. So direct borrowing is to be definitely ruled out. But tradition, as modified by centuries of Muslim rule and administrative system.

In the time of Sultans of Gujarat the province of Gujarat consisted of 25 *sarkārs*. Akbar redistributed them into 16 *sarkārs*. Of these Pattana *sarkār* had 17 sub-divisions or *parganas*. We have actually no idea how the Gujarat Sultans had divided their province of Gujarat. But since Akbar followed the existing system, only regrouping the territory, it seems that he recognized the necessity of dividing the entire territory into sub-units.

But we have seen that this territory, at least from the 11th century, was divided into no less than 8 sub-divisions for administrative and perhaps fiscal purposes. Hence the Sultans could be said to have followed the tradition current before them. If they had more sub-divisions it was because they were foreigners and for better control preferred smaller sub-divisions. Akbar borrowed it from them when he conquered Gujarat and handed it down to the Marathas and the English.

23. Chalukyan Government

Reconstruction of the Chalukyan empire and one of its large units, the Sārasvata-*maṇḍala* shows the method of Chalukyan government. For better government the empire had to be divided in to *maṇḍalas* (provinces) and the *pathakas* (sub-divisions). A comparison between the number and size of Chalukyan *maṇḍalas* (provinces) and *pathakas* (sub-divisions) and those of the British, Gaikwad and Mughal provinces and sub-divisions has shown that the Chalukyan divisions were neither too small nor too large, considering their times when transport was much slower than today. In fact our comparison has shown a close correspondence in size between the size of the Gaikwadi *mahals* and Chalukyan *pathakas*, and the size of the British districts and Chalukyan *maṇḍalas*.

Not only in the division of their empire, but also in the actual government of its various parts the Chalukyas exhibited a high administrative insight.

With the king was a minister called *Mahāmātya, Sachiva or Mantri.* The names several of these we know from Chalukyan records. They were selected irrespective of their caste or creed. Thus a Brahmaṇa, Kshatriya or a Vaiśya whether he be Hindu or Jaina, could hold the appointment, though at times when the king was a bigot, partiality to a particular creed resulted, and proved ability was set aside.

The governor of a *maṇḍala* was usually called a *Maṇḍāleśvara* or *Mahāmaṇḍaleśvara*. In normal times a civillian was selected for this post. But When the province was newly conquered or lay on the frontier which must have been turbulent and its possession precarious a *Daṅḍādhipati* literally a commander of the forces, was appointed to such provinces. Thus under Bhima I, Vimala, a *Daṇḍādhipati* was in charge of Arbuda (Mt. Abu) region, and during the reign of Jayasimha Vāpanadeva held the governorship of Dadhipadra-*maṇḍala*.

What is remarkable is the existence of practices one thousand years ago exactly recalling modern practices. As we all know the British used to appoint an army chief to what are known as non-Regulation provinces. The North-West Frontier Province has only recently got a semi-democratic constitution, and India herself, due to exigencies of time, put under an ex-Commander-in-chief. Similar needs give birth to similar results.

Each *vishaya* or *pathaka* was placed under a separate chief who was directly responsible to its immediate superior. We are thus told that in the reign of Visaladeva, the

chief of Varddhipathaka viz., *Mahāmaṇḍaleśvara* Rāṇaka Sāmantasimha was subordinate to Amātya Nāgaḍa whereas the chief of Vāmanasthali, Mahattara Śobhanadeva was responsible in the first instance to Somarāja, the *Mahāmaṇḍaleśvara* of Surāshtra.

24. Territorial Units and Geographical Boundaries.

What was the relation between purely geographical boundaries, such as rivers, hills, forests and territorial units ? Gujarat being purely an alluvial country, there are very few hills and forests, regions which would either bar territorial expansion or which could be regarded as effective land frontiers. Consequently we do not come across a unit named after a hill or forest. But there are a number of small and big rivers in both northern and central Gujarat. The *doabs* formed by these rivers made a territorial unit. Some of these are expressly mentioned e g., the antaramaṇḍali i.e. the Purna-Mindhola *doab*, Antara-Narmadā, probably the Tapi (Tapti)-Narmada *doab*. Besides the larger rivers of central and southern Gujarat, the Khāri, the Rupen and the Pushmāvati as the discussion of the size of the *pathakas* in the Sārasvata-*maṇḍala* shows, must have been used for fixing the size of the *pathakas* whereas the Banas and Sabarmati formed the western and eastern frontiers of the territory on either side of the Sarasvati, and hence it was named after the river as Sārasvata-*maṇḍala*. Another such unit was the Narmadā-taṭā-*maṇḍala*.

25. Distribution of Population

One small but important point also comes out from the identification of the place-names in Chalukya Gujarat. This is the distribution of the population. We cannot have on idea of the number of people then inhabiting the province, for no census records, if there were any, have come down to us. But plotting the various villages on a map, together with the small and big roads indicates that the villages were spread over Gujarat exactly in the same position as they are now. Very few new villages seem to have sprung up between the old villages. Rather we find some deserted sites of old villages This might have been due to migration to urban areas. Any way our inquiry shows that during the Chalukyan times northern Gujarat was populated in an identical manner as today, which seems to be neither too thick as in central Gujarat or too sparse as in Kutch.

26. Rainfall in Chalukyan Times

From the spread and distribution of the villages and poulation we may reasonably infer the climate, particularly rainfall, during the Chalukyan times. If the land supported as many villages as tody, the quantity of rain (and the wells) which irrigated it could not have been, at least, much less than at present, but probably slightly more. A consideration of the weather reports of the last 50 years seems to favour the view that rainfall has not decreased in Gujarat, though popular view is that northern Gujarat is

slowly being desiccated. The evidence of historical geography, here pointed out, may be valued for what it is worth.

TERRITORIAL UNITS OF YADAVAS OF DEVAGIRI

27. Political History of Yadavas of Devagiri

The empire of the Yadavas of Devagiri was one of the important ones that arose on the ashes of the empire of the Chalukyas of Kalyani. So far we have 120 records of this dynasty belonging to the Deccan, They mention twenty-two princes from the early Yadava family who belonged to the Seunadeśa and nine from the later Yadvas, amongst whom seven were ruling kings of the Deccan.

Bhillama captured some territory from the Chalukyan kingdom and also defeated the Kalachurya monarch. He established the supremacy of the Yadavas over the Deccan, particularly in the Khandesh, Nasik, Ahmednagar and Aurangabad districts, as the find spots of his copper plates show.

He made Devagiri, modern Daulatabad, as his capital.

The records of Singhana mention place-names from the western part of Maharashtra, (former) Hyderabad State, Bombay-Karantaka parts the whole region, from Khandesh and Aurangabad to the north, upto the river Tungabhadra to the south.

His successors maintained the same region under their power. Ramadeva the successor of Mahadeva extended his dominion by annexing the districts of Bhandara, and Nagpur in the Madhya Pradesh, and by occupying the whole of the (former) Mysore State.

Plotting of the place names and the reconstruction of the administrative units mentioned in the records of Ramadeva show that the river Narmada formed the northern limit and Tungabhadra the southern limit of his empire. The region between these two rivers was under the supremacy of the Yadavas.

In 1294 A.D. Alla-ud-din Khilji invaded the dominions of Ramadeva and shattered the Yadava empire. Soon after Harapala the last Yadava ruler was captured. Yadava empire then became a province of the Muslim power.

Besides these imperial powers we have to study the feudatory families of the Śilaharas.

28. Political History of Silaharas

(a) *Of South Konkan*—Of this dynasty we find only two records belonging to the Deccan. These two records mention nine princes of this family.

The dynasty controlled Konkaṇa-900 that is the southern part of modern Konkan, the territory of Goa, and (former) Sawantwadi State.

(b) *Of North Konkan*—So far we have got 35 records of this dynasty, according to which we know sixteen princes of this family. From the find spots and the place

names mentioned in the records, the kingdom seems to have consisted of the region lying south of the Surat, Thana and Kolaba, Ratnagiri districts and Bombay Island.

(c) *Of Kolhapur*—About 26 records of this family are found so far. They mention names of 14 princes.

All the place names occurring in their records belong to the (former) Kolhapur, Miraj and Sangli States, and to the Satara and Belgaum districts. The power of this dynasty seems to have been confined to this region only.

This rapid survey shows that in the past, the Deccan was generally under the direct control of several successive imperial dynasties, each of them had a feudal relation with the preceding one; and for sometime the Deccan was divided between the simultaneous rule of two or more dynasties.

29. Administrative Divisions under the Yadavas

The empire of the Yadavas included the southern part of the Madhya Pradesh, Berar, Maharashtra, Konkana, Karnataka parts of the (former) Mysore and Hyderabad States and Anantapur, Bellary and Kurnool districts of the (former) Madras State.

For the first time in the records of the Deccan, we get one reference the unit '*maṇḍala*' viz. Kuṇḍimaṇḍala. The other units which we find are '*deśa*' '*nāda staya*' "*kampaṇa*" and the units with numerals attached. From our evidence we cannot say whether a '*maṇḍala*' was the largest unit, nor can we say whether the unit '*maṇḍala*' was prevalent in the Deccan in the Yadava period.

The administrative terms seem to have been used loosely, e.g, Kundi-3000 is mentioned as a '*maṇḍala*', '*deśa*' and also a '*vishaya*'.

The Subdivisions of the smaller units are usually mentioned with some numerical figures, and rarely with the administrative terms like '*kampaṇa*'. There seems to have been a complete absence of the unit '*bhukti*'.

The Yadava dominion contained at least the following large units which appear with the designations *maṇḍala*, *deśa*, *vishaya*, *nāda*, etc.

30. Amra Desa

The record of Ś.1150 mentions Āmra *Deśa*. The chief town of the place was perhaps Āmrapura which is identified with Ambe Jogai (Mominabad) in the Bhir district of the former Hyderabad state.

The '*deśa*' included a place called Laghubāḍadhi but it is not traceable now. The record further states that Āmra *deśa* was on the bank of the river Vanjara which is modern Manjara.

From this information we can only say that this deśa was around modern Ambe, lying on the bank of the river Manjara.

31. BANAVASI-12000

Yadava records do not give further information about Banavasi-12000.

32. BASURA VISHAYA

The '*vishaya*' appears for the first time in the records of the Deccan. And that too only in one according to which the '*vishaya*' included the donated place of Changūra.[1] Changūra is modern Sangur in the Haveri taluka of the Dharwar district on the river Varada. The Chief place Basura is not traceable.

The '*vishaya*' might have included at least the southern part of the Haveri taluka. For the first time we get an administrative division in the southern part of the Dharwar district.

33. BELVALA-300 : NADA : VISHAYA

Out of the frequent reference to Belvala-300, only three records mention places in it.

The record of Ś-1113 mentions that Hiriya Haṇḍigola was in Belvala *nāḍa*. Hiriya Haṇḍigola is modern Hire Handigol in the Gadag taluka of the Dharwar district.[2]

The place Gadag itself, which appears as Kratuka in the inscription of Ś. 1151 was also in this unit.[3]

Then a small unit, viz. Kukkanuru-30 was situated in the Seivala, according to the copper plate of Ś. 1175.[4] Kukkanūra-30 is the region surrounding modern Kukkanur in the Raichur district.

From the Yadava records then we only know a portion of Belvala-300 of the Kalyani Chalukyan period. It included the Gadag taluka and the western part of the Raichur district.

34. BHANDAGARA DESA

Bhandagāra *Deśa* was annexed to the Yadava kingdom in the time of Ramadeva. Only one record of Ś. 1232 mentions this unit, but no place belonging to this *deśa* is mentioned therein.[5]

Bhandagāra, the headquarters of the '*deśa*', is modern Bhandara in the Bhandara district. No further information about its extention is available.

35. DHARORA DESA

Ambe inscription of Ś. 1150, refers to Dhārōra *deśa*.[6] Dhārōra is modern Dharur

1. Purushottamapuri Copper Plate *Epi. Ind.*, XXIII, p. 199.
2. *SMHD*, 1, p, 62.
3. Mardi inscription, *SMHD*, 1, p. 43.
4. Munaval stone inscription, *Karnataka Inscriptions*. No. 31.
5. *Epi. Ind.*, XX, p. 199.
6. *INKK*, No. 150.

the in Bhir district, about 17 miles (28 km) north-west of Ambe-Jogai. The record does not mention any place situated in it.

The *deśa* might have been adjacent to Āmra *deśa*.

36. HAGARATAGE-300

The record does not mention any place situated in Hagaratage-300. Hagaratage which is Hagaratgi in the Gulburga district of the former Hyderabad state, is mentioned as Pegalatti in the Kalyani Chalukyan times. Hagaratage-300 might have been equivalent to Pagalatti *Vishaya* of the Kalyani Chalukyas.[1]

37. HALASIGE-12000 NADA

The record of Ś. 1174 mention that Kuttumbagi was in Halasige *nāda*.[2] Kottumbāgi is modern Kotbagi in the Khanapur taluka of the Belgaum district. The taluka might have been part of the *nāda*.

38. HULIGERE-300

Huligere is the changed form of Puligere, which is modern Lakshmeshvar. Huligere-300 appears in several records, but there is no reference to the places situated in this unit.

39. KANHAIRI DESA

The Purushottamapuri Copper Plate of Ś. 1232 refers to Kanhairi *deśa*.[3] Kanhairi, which was the chief place of the *deśa* is modern Kanher in the Chalisgaon taluka of the East Khandesh district.

The *deśa* included in it, the subdivision named Kanhairi 'khampana'. The 'Khampana' included in it Pokhari which is modern Pohari. Pokhari again contained three hamlets, namely, Pāli Pokhari, Pimpalgahvāna, and Saegahavāna. The first is not traceable, the other two are modern Pimpalgaon and Saigaon respectively. All are situated in the Chalisgaon taluka.

Besides these the 'Khampana' included Aḍagan, which is modern Adgaon in the Chalisgaon taluka. It included in it three hamlets, viz. Pimpalavaḍi, Kājalakovi and Soijana. Pimpalavaḍi is modern Phul Pimpalwadi; the other two places could not be traced.

Kanhairi *deśa* also included vāghaure which is modern Waghur in the Bhir district of the former Hyderabad state. Vāghaure consisted of three hamlets, viz. Dhāravāghure which is now merged in the same village Waghur, Golegahvan, that is Gohanthadi, 4.8 km north by west of Waghur, and Simpa Vihire which can not be identified.

The record refers to other places such as Purusottamapuri, Rajagau Hivare, Sadule Kesavpuri which are modern, Purushottamapuri, Rajegaon, Hivare, Sadole and Keshavapuri respectively, and are about 3.2 to 12.8 km from Waghur. Though it is not mentioned, it is likely that these places also belonged to Kanhairi *deśa*.

1. Purushottampuri Copper Plate, *Epi. Ind*,, XXV p. 199,
2. Kolhapur inscription, *JBBRAS*, II. p. 264.
3. Thana copper plate, *JBBRAS*, V, p. 183.

The Kanhairi *deśa* then covered an area of about 160×28.8 km and included modern Chalisgaon taluka of the East Khandesh district, and parts of the Aurangabad and Bhir districts.

40. KARAHADA-2000

Karahāṭa-4000 of the Kalyani Chalukyan period appears as Karahāḍa-2000 in the Yadava records.

Kokatnur inscription of Ś. 1175 mentions that Karahāḍa-2000 included Kaṇam baḍe-300.[1] Kaṇambaḍe is modern Kenamodi which was mentioned as Kaḷḷambadi in the Kalyani Chalukyan record. Kaṇambaḍe-300 included in it Koggaṭanagrahāra which is modern Kokatnur in the Athni taluka 32 km south-west of Kanamodi.

Though only one record gives reference to Karahāḍa-2000 it shows that it occupied an area of 80×16 miles, that is, roughly covered the same area as in the preceding period. The area, however, included modern Karhad, Vite Kharkundi talukas of the Satara district, parts of the Sangli and Miraj States and the Athni taluka of the Belgaum district.

41. KHETA DESA

After the Badami Chalukyan period we find a reference to Kheta *deśa* in the Yadava period.[2] But unfortunately the record does not mention places in it. Kheṭa is modern Khed, the chief place of the taluka in the Ratnagiri district. The extention of the '*deśa*' cannot be worked out.

42. KOLHAPURA DESA

The reference to Kolhāpura *deśa* is found for the first time in the record of Ś. 1172,[3] Kolhāpura the headquarters, is obviously modern Kolhapur, the capital city of the (former) Kolhapur State.

The record gives no further information. But the reference is important as it suggests that Kolhapur had been a unit of administration since the 13th century.

43. KONKANA DESA

Konkana *deśa* included in it Satshashṭhi *vishaya*. This *vishaya* roughly corresponds with modern Salsette island.[4] Konkana *deśa* further included Supali, Ghārapavali[5] and Zarimaṇḍala. Except the last the other places could not be identified. Zari[6] is modern Zari in the Umbargaon Peta of the Thana district. Though it is found with the '*maṇḍala*' suffix, no place in it has been mentioned, perhaps '*maṇḍala*' has been attached just to give importance to the place.

Konkana *deśa* then included at least parts of the Thana district and parts of the Salsette island.

1. *Epi. Ind.*, XXIII, p. 281.
2. *Epi. Ind.*, XXV, p. 199.
3. Chikka Bagewadi Copper Plate, *EC*, XI, p. 50.
4. Harihar Inscription, *Ibid.*, p. 50.
5. Velapur Inscription, *SMHD*, 1, p. 78.
6. Khaidrapur Inscription, *JBBRAS*, 12, p. 7.

44. Kundi Mandala, Desa, Vishaya-3000

In the Yadava records Kuṇḍi-3000 appears as '*maṇḍala*' *desa*, and a *vishaya*. Only two records mention the places in this unit. The record of Ś. 1171, registers certain lands of Santhey - Bagevadi in the Huvaḷḷi-12 in the Kuhuṇḍi *vishaya*.[1] Santheya Bāgevādi is modern Bagewadi in the Belgaum taluka, and Huvaḷḷi has been identified with (Mugatkhan) Hubballi about 10 miles (16 km.) south-east of Bagewadi.[2]

Another record mentions that Venugrāma was in Kunḍi *maṇḍala*. Venugrāma is modern Belgaum.

Interesting point is that the record of Ś 1171 refers to Veṇugrāma as a *vishaya* and of 1179 as a *deśa*. But in Ś. 1176 it is mentioned that Veṇugrama was in Kuṇḍi *maṇḍala*. It is likely then that the whole unit Veṇugrāma *deśa* was situated in Kuṇḍi *maṇḍala*.

Kundi *maṇḍala* then included at least the Belgaum taluka of the Belgaum district. It is thus only a portion of Kuṇḍi-3000 of the earlier period.

45. Mana Desa

Māna *deśa* occurs only in the Velapuri inscription of Ś. 1222 which included Velāpurī which is identified with Velapuri in the Malshiras taluka of the Sholapur district.[3] The division might have been comprised of the portion of Sholapur district between the rivers Bhima and Man.

46. Mirinji Desa

The record of Ś. 1136 Mirinji deśa mentions that it included Kudaladāmavāḍa.[4] Mirinji is modern Miraj and Kuḍaḷadāma vāda his been identified with the modern Kurundwad the chief place of the Kurundwada State on the confluence of the rivers Krishna and Warna. The '*desa*' is known only lengthwise which is about 19.2 Km.

47. Nule Nadu

Nūle-*nāḍu* is mentioned only once in the Yadava record. Arjunwad inscription of Ś. 1182 mentions that Kaviḷāsapura was situated in Nūle *Nādu*. The chief place of the division, Nūle is identified with Nul, 24 km west of Hukeri in the Hukeri taluka of the Belgaum district, and Kavilāsapura is Kavilasapur, 11.2 km west of Nul. Kaviḷāsapura included in it another small hamlet called Mosaragutti which is modern Mosaraguppi, 1 mile (1.6 km) from Kavilasapura.

Form this we may say that the region around Nul, in the present Hukeri taluka was once included in a unit called Nūle *Nādu*.

1. *Epi. Ind.*, XXV, p. 199.
2. Ashvi Copper Piate, *OBISM*, 3-1-13.
3. Paithan Copper Plate, *Ind. Ant.*, 14, p. 315.
4. Muttage Inscription, *INKK*, No. 16.

48. SANGAMA DESA

There is only one reference to Sangama *Desa*.[1] but the record gives no further information. Samgama, the chief place of the unit, seems to be modern Sangameshvar, in the Sangameshvar taluka of the Ratnagiri district. The unit might have included present Sangameshvar taluka with the adjoining region, and might have been adjacent to Kheta *Deśa*.

49. SEUNA DESA

The chief town of Seūna *deśa* was perhaps Seūnapura which has been identified with Sinnar in the Sinnar taluka of the Nasik district. Sinnar seems to have other names also—e.g. Sindinagara, Śringara, etc.

Seūna *deśa* included in it Śrīngara-2500. The record of Ś. 1020 registers the grant of Konkaṇagrāma in Samgemanera-84 which was situated in Srinagara-2500.[2]

The latter is modern Sangamner in the Sangamner taluka of the Ahmednagar district, and former is Konkangaon, 12.8 km from Sangamner, 9.6 km north of Konkangaon.

(a) to the north-east—Meshīpāṇīya which is modern Mendhvan, 9.6 km north-east of Konkangaon.

(b) to the east—Dundudeva which is modern Dudheshvar, 12.8 km east of Konkangaon.

(c) to the south-east—Kōvachīgrāma which is modern Konchi, 6.4 km east by south of Konkangaon.

(d) to the south—Maniyavaligrāma which is modern Manoli, 1.6 km south of Konkangaon.

(e) to the south-west—Juñyerevegrāma which is modern jorve, 12.8 km south-west of Konkangaon.

(f) to the west—Vaḍagavagrāma which is modern Wadgaon, 3.2 km west by north of Konkangaon.

(g) to the north -west—Sangavigrāma which is modern Sangavī.

All these places are situated in modern Sangamner taluka. Śrīnagara-2500 then included at least parts of modern Sinnar and Sangamner talukas.

50. BOUNDARIES OF VADATHANAGRAMA

The record of Ś. 1193 mentions the grant of three places, namely Vādāthāṇagrāma which is described as the ornament of Seuna *Desa*; Pāṭāra Pimpalagrāma and Vaidya-Ghoghargrāma.[3] Vādāthāṇa is the same as Vadathen now, the other two are modern Gade Pimpalgaon and Ghoghargaon, both are in the Aurangabad district.

1. Bijapur Inscription, *INKK*, No. 17.
2. Mangoli Inscription, *Epi. Ind.*, XV, p. 29.
3. Arjunawad inscription, *Ibid.*, XXI, p. 9.

The places on the borders of Vādāthānagrāma are mentioned as—

(a) to the east—Vāhagamve which is modern Waigaon,
(b) to the south-east—Neūragāmvu which is modern Neurgaon.
(c) to the south—Deigāmvu which is modern Degaon.
(d) to the south-west —Nāgamaṭhāṇa which is modern Nagemathan,
(e) to the west—the river Ganga which is modern Godavari,
(f) to the west—Āluemgāmvu which is modern Avalgaon.
(g) to the west—Khātigrāma which is not traceable,
(h) to the west—Jāntegāmva which is modern Jategaon,
(i) to the north—Pāniva which is modern Panvi,
(j) to the north-east—Vaḍakhala which is modern Warkhed.

All these places are in modern Aurangabad district. Devagiri, the capital of Yadavas might have been situated in Seūna *deśa*.

The identification shows that Seūna *deśa* was a large unit, which extended about 112×51.2 km.

The area might have included Sinnar taluka of the Nasik district, the northern part of the Ahmednagar district and the western part of the Aurangabad district.

From the identification of the places in Kanhairi *deśa* and Seūna *deśa*, it seems that the Seūna *deśa* might have occupied the south-western part of Kanhairi *deśa*.

52. TARDDAVADI-1000-VISHAYA

Tarddavāḍi-1000 appears several time in the Yadava records, but only five records give information about it.

The earliest reference is found in Ś. 1111 which mentions that Muttage 30 was in Tarddavāḍi-1000.[1] Muttage is the same Mutgi in the Bagewadi taluka of the Bijapur district and Taddavāḍi is Tadewadi in the same district. Muttage-30 included in it a place called Bivapura, but it is not traceable now.

Bijapur inscription of Jaitrapala refers to Kiri-Indi as situated in the Taddavāḍi-1000.[2] Kiri Indi is modern Indi in the Indi taluka of the Bijapur district. According to another inscription of Jaitrapāla, Manigavalli, modern Mangoli in the Bagewadi taluka was in Tarddavāḍi.[3]

The inscription dated Ś. 1182 includes Bagavadi, modern Bagewadi in this unit.[4]

Ingaleshvar inscription of Mahadeva records that Ingaliśvara, modern Ingaleshvar in the Bagewadi taluka of the Bijapur district was in Tarddavadi-1000.[5]

1. *INKK*, No. 20.
2. Munavalli stone Inscription, *Karanataka Inscriptions*, No. 31, p. 71.
3. Purushottampuri Copper Plate, *Epi. Ind.*, XXV, p. 199.
4. *Ibid.*
5. Bendigeri Copper Plate, *Ind. Ant.*, XIV, 69.

From these references we get some idea of Tarddavāḍi-1000.

To the north it was bounded perhaps by the river Bhima, and to the south by Krishna. The unit included modern Indi, Bagewadi, Bagalkot and Bijapur talukas of the Bijapur district.

53. Toragale-6000, Nadu

Taragale *nādu* or 6000 is found in about ten records but from only one record we know that it included Munivalli or Mumudravalli or Munipura.[1] Toragale is modern Torgal in the Ramdurga State on the river Malaprabha and Mumundravalli is modern Manoli, 12.8 km south west of Torgal, in the Parasgad taluka.

From the identification of Torgale and of the other units we can imagine the probable limits of Torgale-6000. To the north-east was perhaps Tarddavādi-1000; to the south—east might have been Belvaḷa-300; to the south-east perhaps Halsige *nada* and to the north-west perhaps Kuṇḍi-3000.

54. Vajrakara Desa

Only a record of Ramadeva mentions this *vishaya*. Vajrkāra is perhaps modern Vairgarha in the Chanda district. No further information is available.

55. Varadatata desa

Varadātaṭa *deśa* occurs only in one record but no place in it is mentioned.[2] Varadātata may be modern Wardha, the chief place of the Wardha district. The identification is doubtful but the name 'Varadātata' suggests the country on the bank of the river Varada.

56. Venugrama Desa Vishaya

Veṇugrāma or Velugrāma which was the headquarters of Veṇugrāma is modern Belgaum. We find it as a separate unit of administration in the record of Ś. 1171, which mentions the donated place Tāmbrapuri in Veṇugrāma *vishaya*.[3] Tambrapuri is probably modern Tamgaon in the Belgaum taluka.

Then according to the record of Ś. 1179 Veṇugrāmadeśa included Chiñchuṇike-70 which is the region surrounding Chinchani in the Belgaum taluka.[4]

The unit then roughly included modern Belgaum taluka of the Belgaum district. Veṇugrāma the chief place of the *deśa* or *vishaya* was situated in Kuṇḍi *maṇḍala* also according to the record of Ś. 1176.[5]

From this reference we may conjecture that the latter included Veṇugrāma *deśa*. This may suggest that a *maṇḍala* unit was larger than the '*deśa*'.

1. Hannikeri Inscription, *INKK*, No. 22.
2. Harihar Inscription, *EC*, XI, p. 50
3. Bendigeri Copper Plate, *Ind. Ani.*, XIV, p. 69.
4. Hannikeri Inscription, *INKK*, No. 22.
5. *CII*, IV, 414.

57. Adminstrative Units of Yadava Empire

Identification of the Yadava administrative units shows that these were spread over modern Maharashtra, Karnataka, Madhya Pradesh and Berar and the (former) Hyderabad state as follows :

(A) Maharashtra State

Kanhairi *Deśa* =Kanhairi is modern Kanher in the Chalisgaon taluka of the East Khandesh district. It included modern Chalisgaon taluka and parts of the Aurangabad and Bhir districts. Extension 160 × 28.8 km.

Karahāḍa *Deśa* =Karahāḍa is modern Karhad. The Unit included modern Karhad, Vite, Tasgaon and Kharkundi talukas of the Satara district, and parts of the Miraj and Sangli States and the Athni taluka of the Belgaum district. Extension approximately 128 × 25.6 km.

Kolhāpura *Deśa* =Kolhapura is modern Kolhapur. The region surrounding it was included in the '*deśa*'.

Konkaṇa *Deśa* =Thana district formed a part of the Koṇkaṇa *deśa*.

Māna *Deśa* =Malshiras taluka of the Sholapur district was a part of the Māṇa *deśa*.

Mirinji *Deśa* =Mirinji is modern Miraj. Parts of the modern Miraj and Kurundwad States were included in Mirinji *Deśa*.

Sangama *Deśa* =Samgama is modern Sangameshvar in the Sangameshvar taluka of the Ratnagiri district. The taluka might have been a part of Sangama *deśa*.

Seuṇa *deśa* =Seunapura, the chief place of the *deśa* is perhaps Sinnar in the Nasik district. The *deśa* included northern part of the Ahmednagar district. Sinnar taluka of the Nasik district and the western part of the Aurangabad district. It might have covered an area of 128 × 5.2 km.

(B) Karnataka State

Banavasi =Banavasi is the same Banwasi in the North Kanara district. The extension of the unit cannot be stated.

Bāsūra *Vishaya* =Basura itself is not traceable. But modern Haveri taluka of the Dharwar district might have been a part of the *Vishaya*.

Belvala =Modern Gadag taluka and some of the western part of the Raichur district were included in Belvala-300.

Halasige-12000 = Halasige, the older Palasige, is modern Halshi. The Khanapur taulka of the Belgaum district formed a part of Halasige-12000.

Huligere = Huligere which appears in the earlier period as Puligere is the same Lakshmeshwar. No further information is available in this period.

Kuṇḍi *Maṇḍala Deśa Vishaya* = In this period only a portion of the earlier Kuṇḍi-3000 is known. Accordingly, we know that the present Belgaum taluka of the Belgum district was in Kuṇḍi-3000.

Nūle *Nādu* = Nūle is modern Nul, in the Hukeri taluka of the Belgaum district. Part of the Hukeri taluka might have been included in Nūle *Nādu*.

Tarddavāḍi = Tarddavāḍi is modern Tadewadi in the Bijapur district. Parts of the modern Indi, Bagewadi, Bijapur, Bagalkot, talukas were in Tarddavāḍi-1000. The extension might have been 112 × 19.2 km.

Toragale = Toragale is modern Torgal in the Ramdurg State. Part of the Parasgad taluka might have been in Toragale-6000.

Veṇugrāma *Deśa* = Veṇugrāma is modern Belgaum. The Belgaum taluka formed a part of the Veṇugrāma *deśa*.

(C) Madhya Pradesh and Berar :

Bhāṇḍagāra *Deśa* = Bhāṇḍagāra is modern Bhandara in the Bhandara district. The region around it might have been included in the *deśa*.

Vajrakāra *Deśa* = The identification of this *deśa* is doubtful. Vajrakāra may be modern Vairgarha in the Chanda district. The region around it might have formed the *deśa*.

Varadātata *Deśa* = Varadātaṭa may be modern Wardha. The unit may correspond with the region on the bank of the river Wardha.

(D) Former Hyderabad State

Āmra *Deśa* = Amrapura was the chief town. The *deśa* included region around modern Ambe Jogai in the Bhir district.

Dhārōra *Deśa* = Dhārōra is Dharur in the Bhir district and the *deśa* might have included the adjacent territory.

Hagaraṭage = Hagraṭage is modern Hagaratgi in the Gulburga district. The region surroundig it formed the unit.

58. Territorial Units of the Yadavas.

From the above analysis it would seem that there was irregular use of the administrative terms; as the same unit appears as a *deśa* in one record and a *vishaya* in the other record. Nor can we say about the modern equivalents of the ancient divisions. The *deśa* sometimes is found to be larger than a district, and sometimes included only a taluka. Such as Kanhairi or Seūna *deśa* occupied a lager territory than a district. Sometimes we do not find any place belonging to the *deśa*, e.g. Kheta, Samgama. Unless we get sufficient information about these units, it is not possible to say about the size of a *maṇḍala*, *deśa* or *vishaya*.

The unit *maṇḍala* is found only once; hence we do not know whether the whole empire was divided into various *maṇḍalas*, or just to increase the importance of Kuṇḍi *deśa* it was called as Kundi *maṇḍala*.

The unit *nāda* is found in the Karnataka area, and in the Kannada records *Nāda* is a Kannada word meaning a *deśa*.

Though the records do not give sufficient information about each and every unit, they present a number of new units, such as—

Amrapura deśa, Bhāṇḍāgāra deśa, Basura Vishaya, Dhārorr deśa, Hagaratage-300, Kanhairi deśa, Kolhapur deśa, Māṇa deśa, Nule Nadu/Mirinji Deśa, Vajarakāra deśa, Varadatata deśa, etc.

We find more units from Madhya Pradesh, Hyderabad and Konkana area. There is only one reference to the unit Kampana.

There seems to have been complete absence of the units *bhoga*, *bhukti*, *pathaka*; numerals were used to indicate the subdivisions or smaller units.

We get reference to Kanhaire Kampana as the subdivision of Kanhairi *deśa* and Srinagara-2500.

TERRITORIAL DIVISIONS OF KALCHURIS RATNAPUR

59. Political History of Kalachuris

The Kalachuris of Ratnapur who had their capital at Tummāna in Bilaspur District had branched of from the main branch, viz. the Kalachuris of Tripuri. The king who effected this change was Kalinagaraja.

Their kingdom comprised the Bilaspur and Raipur districts and the northern portion of the Drug district.

Their inscriptions refer to Mantragrani Vigraharaja[1] and Purushottama[2] Kshitipa-sachiva Raghava[3] who as Sarvadhikārin was invested with supreme powers of direction

1. *CII*, IV, 414.
2. *Ibid.*, 432.
3. *Ibid.*, 469.

and administration. Both the terms *Mantragrani* corresponding to the chief or Prime Minister and *Kshitipa sachiva* meaning counsellor of the king are new ones.

The post of the scribe of copper plate grants in the secretariat at Ratnapur was held by a Kayastha family of the village Jandera for several generations.[1] *Vishaya, desa, mandla* were the administrative units. *Vishaya* denoting a district was of common occurrence before. It is now noticed but once i.e. Anarghavalli *Vishaya*. It seems that its place was taken by *mandala* in the south of Madhya Pradesh and *pattalā* in the north of the country.

60. Seven Desas of Kalachuris

Seven *desas* are mentioned. (1) Bhramaravadra *deśa*, (2) Bhattvila *deśa*, (3) Madhya *deśa*, (4) Tamanāla *deśa*, (5) Vadahara *deśa*, (6) Viharā *deśa* and (7) Kākayara *deśa*.

Mirashi[2] is not certain about the names of Tamanāla *deśa* and Viharā *deśa*. They are not met with elsewhere. Hiralal[3] conjecturally placed them to the north of the former Raigarh State.

(a) *Anarghavalli vishaya* : This *vishaya*[4] probably corresponds to the modern Janjgir tahsil in the Bilaspur district, though no place of that name can now be traced in it.

(b) *Bhramaravadra desa* :- Only one inscription refers to Bhramaravadra *deśa*.[5] According to Mirashi, it may be identical with the Bhramarakotya *mandala* in the former Bastar State. Bhramarakotya was possibly an alternative name of Chkrakotya.[6]

(c) *Bhattavila desa* :- Only one inscription[7] refers to this *deśa*. The inscription does not mention any village from this *deśa*. According to Hiralal, Bhattavila was identical with Baghelkhand.

(d) *Madhyadesa* :- Madhyadesa[8] occurs twice in inscriptions. The two villages Budukuni and Avala which are modern Daikoni and Arodi belong to the Janjgir tahsil of Bilaspur District. The two villages are within a radius of twenty miles (32 km.) of Janjgir and comprise the south-eastern part of the Bilaspur district. This portion of the Bilaspur district stands for the ancient *Madhyadeśa*.

(e) *Vadahara desa* :- Vadahara *deśa* occurs in the Rajim stone inscription of Prithvideva II.[9] According to Mirashi it was probably situated in the country under the rule of the Bhanjas.

(f) *Kakayara desa* :- Only one inscription[10] mentions Kākayara *deśa*. It has still retained its old name in the form Kanker, formerly a feudatory State in Chhattisgarh.

1. *Ibid.*
2. *Ibid.*, 452.
3. *Ibid.*
4. *Ibid.*, 421.
5. *Ibid.*, 457.
6. *Epi. Ind.*, IX, 179.
7. *CII*, IV, 453.
8. *Ibid.*, 445, 514.
9. *Ibid.*, 453.
10. *Ibid.*

(g) *Anarghavalli*:- The inscriptions twice mention this Anarghavallī *maṇḍala*.[1] The donated village Chinchatalai is probably Chinchola on the left bank of the Hasdo river in the Janjgir tahsil. Jandera, the village owned by the writer Kirtidhara is probably identical with Jondra on the left bank of the Seonath river, about 21 miles (33.6 km) outside the south-west limit of the Janjgir tahsil. The Village Kayatha which is modern Kaita is about 4.8 km beyond the southern limit of the Janjgir tahsil.

According to Mirashi[1] the *maṇḍala* of Anargha roughly corresponds to the modern Janjgir tahsil of the Bilaspur district.

(h) *Apara maṇḍala* :- Two inscriptions[2] mention, this administrative unit. Only two villages are mentioned as Tasahā the donated village, is clearly Basaha, about 12 miles (19.2 km) north by east from Bilaspur. The other village Asauthā is not yet traced. It is, however, clear that the Apara *maṇḍala* or the western division may probably have included the territoiry round Basaha.

(i) *Evadi maṇḍala* : Evadī *maṇḍala*[3] mentioned once in the Bilaigarh Plates. The village granted is Pandaratalai. There are several villages of the name Pendri or Pendria but the nearest to Bilaigarh is Pendria about 11.2 km north-west of Sheorinarayan. Evadi the chief town of the *maṇḍala* is not as yet identified.

(j) *Komomaṇḍala* :- Three inscriptions mentioned Komo-*maṇḍala*[4] Mirashi has identified it with the country surrounding the village Komo in the Pendra zamindari, 40 km north by east from Bilaspur.

(k) *Khimidi-maṇḍala* : According to Mirashi[5] it is probably identical with the zamindari named Kimidi in the Ganjam district,

(l) *Samanta maṇḍala* : Sāmanta *maṇḍala* occurs in the Ghotia plates.[6] It appears to have comprised the outlying districts of the kingdom. The inscriptions do not refer to any particular *maṇḍala* of the Sāmantas.

(m) *Talahari maṇḍala* : Talahāri *maṇḍala* is mentioned in three inscriptions. According to Mirashi it seems to have comprised southern portions of the Bilaspur and Janjgir tahsils and the northern portions of the Raipur district. Though not a single place name is mentioned; the ruins of ancient temples and other structures can be traced in this region.

61. Kingdom of Kalachuris

The Kingdom of Kalachuris of Ratnapur, therefore, comprised the following regions :-

Anarghavalli *vishaya* = parts of Janjgir tahsil in Bilaspur district.
Madhya *deśa* = South-eastern part of the Bilaspur district.

1. *Ibid.*, 428, 547,
2. *Ibid.*, IV, 428, 547.
3. *Ibid.*, 545.
4. *Ibid.*, 400, 406.
5. *Ibid.*, 461.
6. *Ibid.*, 405, 412, 454.
7. *Ibid.*, 482,
8. *Ibid.*
9. *Ibid.*
10. *Ibid.*, 453.
12. *Ibid.*, 413, 469, 504.
13. *Ibid.*, 452.

Anarghavalli *maṇḍala* = Janjgir tahsil, Bilaspur district.
Apara *maṇḍala* = Territorry around Basaha, Bilaspur district.
Evadi *maṇḍala* = Region aroiud Pandari, Bilaspur district.
Komo-*maṇḍala* = Country surrounding the village Komo in the Pendra zamindari, Bilaspur district.
Khimidi *maṇḍala* = Khimidi zamindari, Ganjam district.
Talahārī *maṇḍala* = Southern portions of the Bilaspur and Janjgir tahsils and the northern portions of the Raipur District.

From the above description it seems that the Kalachuri kingdom comprised the districts of Bilaspur, Raipur and northern parts of Drug district.

The Rajim stone inscription[1] of Prithvideva II eulogizes the heroic deeds of the powerful general Jagatismha. He conquered the 'countries' Bhrarmaravadra (parts of Bastar State), Kākayara (Kanker) and Bhattavila (Baghelkhand). It is not clear whether the Kalachuri kings exercised direct sway over these countries or the States were vassals.

The countries Vihārā and Tamanāla cannot be satisfactorily defined. Hiralal conjecturally placed them to the north of the former Raigarh States.

1. *Ibid.*, 452.

MONUMENTS OF THE YĀDAVA PERIOD IN THE POONA DISTRICT

Monuments of the Yadava period, principally temples, known usually as *Hemādpanti*, have been noticed by Cousens[1] from all districts of the Deccan but none from the Pune District. Likewise a reference to the *Revised List of Antiquarian Remains in the Bombay Presidency* showed that hardly any monument in the Pune District other than caves had been actually surveyed by the Archaeological Survey (though a number of monuments have been mentioned in connection with certain places in the district). Hence, before an exploration on behalf of the Deccan College Research Institute was undertaken, it was decided to go back to the *Bombay Gazetteer* for getting some clues as to the ancient sites in the district. From it, as well as from the *Revised List* mentioned above the following places viz. Junnar, Pur, Mankeśvar, Dhāmankhed, Ale and Belhe which are in Junnar Taluka, were selected for this year's (1939-1940) work.

The Bombay Gazetteer[2] mentioned that a number of loose sculptures lay about the Junnar town. In order to examine them with a view to acquiring them for our Museum of purely Deccan Antiquities we[3] searched these places, but nowhere did we get a trace of these. In the Court compound only one broken female figure was found; all the rest seem to have disappeared. A few sculptures are still to be found in the temple of Padmavati,[4] but they are not more than 300 years old.

At Dhāmankhed, 4.8 km south of Junnar, remains in the temple of Khandoba and near it are not very old. So too the temple of Jñaneśvara at Ale,[5] 16 km east of Junnar, where on account of the known antiquity of Jñaneśvara we expected to find some traces of old remains, but there were none. The *śikhara* of the present temple is of the Maratha type, while inside, the walls, etc., contain paintings, which may be useful for studying the social and religious life of that period.

Definite evidence, however, of ancient monuments we found at Pur, Mankeśvar and Belhe.

Pur is a small village, a hamlet,[6] 19.3 km west of Junnar, nestling in the heart of hills which terminate later at the Nana Pass. It is a delightful, yet awe-inspiring, place,

1. *Mediaeval Temples of the Dakhan*, ASI, (NIS) Vol. XLVIII, 1931.
2. Vol. XIII, Part iii, p. 148, n. 1.
3. The party consisted of the writer and his two pupils, Mr A.V. Naik and Mr D. R. Patil.
4. Situated to the west of Junnar town, at a little distance from the road to Śivaneri fort, near a revulet; cf. also *Bomb. Gaz.*, *op. cit.*, p. 201.
5. *Ibid.*, p. 129.
6. *Bomb. Gaz.*, *op. cit.*, p. 104.
7. *Ibid.*, p. 425. Contains a detailed description of the place.

for the cool wooden upland seems at the very end of all civilzation.[1] Here is the source of the river Kukadi which, flowing by Rajur and other small villages, reaches Junnar. The place where it oozes out in sufficient quantity has been built up into a tank (*kuṇḍ*); the water falling in it through a gargoyle. Behind, to the west of this tank, stands the temple of Kukuḍeśvara, named evidently after the river.

The temple is in a sadly, ruinous condition, though as it is still in use, and a place of pilgrimage on *Mahāśivarātri* festival. It is protected by a tin roof[2] erected presumably by the pilgrims.[3] The temple stands on a modern platform (9.7 m east to west by 9.1 m north to south), which since it is covered by a roof, gives the appearance of a verandah (1.8 m wide) all round. The temple measures about 12.1 m long by 5.5 m broad. It faces west and consists of a *garbhagriha*, a *gūdhamandapa*, and an *antarāla* between the first two. Neither its exterior nor the interior is profusely decorated with figures or design sculpture.

To take the exterior of the temple first. There are four basement mouldings but all of them are comparatively simple, decorated respectively with a scroll work, a string course of *hamsas*, human figures and, *kīrtimukhas*.

The part above this, constituting the *jangha*, or the wall-face proper, is rather sparingly ornamented. The principal decoration being figures of deities—Śaiva and Vaishnava, but the dancing and amorous couples are not so much in evidence. What the exact number and proportion of these deities was originally cannot be ascertained now, because of the ruinous condition of the temple. But we could count thirteen of them on the temple itself. Of these twelve figures belong to the Śaiva pantheon and one to the Vaishnava.

Among the Śaiva deities we have one image of Ganapati, five images of Śiva and five of Śiva's consort, four as Parvati and one as Chamundi or Kālī.

The image of Ganapati is carved in a niche, to the left of the shrine door, on the western wall of the temple. The figure is standing in *tribhanga* pose, but since it is besmeared with red lead its other features are not distinct.

Of the five images of Śiva, one image is in his *Tandava* manifestation, shown in high relief in the the back niche (facing east) of the shrine chamber.

Another image, in the south-east corner of the temple, is in his *Bhairava* form. Of the remaining three figures one is found on the north face of the *śikhara* and the rest in ordinary form—Śiva seated with four arms—are found on the southern and western faces of the temple walls.

1. *Ibid.*, pp. 424-29.
2. When Bhagvanlal Indraji visited it in 1882, there was a tiled roof (*Bomb. Gaz.*, p. 424), Owing to this it was not possible to take photograph of the general view of the temple.
3. This is, however, hardly a protection against heavy rain and consequent vegetation growth to which the temple is exposed.

Out of the five figures of Śiva's consort, one is in the form of Chamundi, looking fierce and ugly with an emaciated body, pendant breasts and dancing on a prostrate human figure, carved in the north niche of the shrine The other four figures are as usual, showing her seated by the side of the four armed Śiva, surounded by female attendants. Of these three are on the south face of the temple and one on the *śikhara*.

The Vaishnava figure is of Vishnu in his Varaha incarnation. It is sculptured on the south face of the temple.

The *garbhagriha* or the shrine chamber has three faces, one to the east (or the back), the other to the north, and the third to the south. Each face is about 1.2 m broad and contained a sculpture. In the northern niche we still find a figure of Chamundi, in the eastern Śiva in the *Tandava* form, but the southern is covered up with raiters.

Inside the shrine chamber is square, and a little sunken, on a lower level than the *maṇḍapa*, as in the temple at Ambarnath, for instance. It contains a *linga* on a *yonpītha*, besides brass *lingas* with four faces.

The shrine door-way is well-decorated. Including the sculptured panels on its either side it is 1.8 m broad and 2.3 m high with the overhanging eave and the carvings over it. "Over the shrine door are three bands of carved figures, each about a foot broad, separated by narrow belts of mouldings. The highest band of figures is carved in the eight sided belt of stone which supports the dome. They are standing *yogins*, forty in all, five in each of the eight faces".[1] Below, over the door, are nine *navagrahas* and *vidyadharas*. In the third *row* are five Devis.

Between the *garbhagriha* and the *maṇḍapa*, is an *antarala*,[2] an intermediary hall, 1.2 m long by 2.15 m broad supported on two pillars and two pilasters, decorated with a figure in a niche (0.91 m broad by 1.8 m in high) on either side, (the niche on the left hand has Ganesa, and that on the right a devi), and a ceiling, 'rising in three rounded bands, to the central stone which is carved in the hanging lotus pattern.'

The *maṇḍapa* which is 3.8 m long by 4 m broad, is of the *gudha* (closed variety, having no porches or windows. It contains four free standing pillars, "standing (1.4 m) apart from each other," four pilasters, two in the walls on either side, a ceiling and sculptures of deities in niches and corners.

1. The measurements are as given by Bhagwanlal Indraji (*Bomb. Gaz., op. cit.*, p. 427), from where I have also taken this description. I could not, however, check it for it was so dark in the interior that without good light it is impossible to see anything inside.
2. Bhagwanlal Indraji calls it a 'passage', *Ibid.*, p. 426. Its Sanskrit equivalent would be *antarāla*; but this *antarāla*, be it noted, is different from the one noticed in Haihaya temples. See Banerji, *The Haihayas of Tripuri and their Monuments*, MASI, No. 23, pls. x and xvi.

The pillars of the *maṇḍapa* (as well as the pilaster of the *antarala* are of a uniform type, having a square base, the shaft on which is partly square, partly octagonal and partly round. It is surmounted with pillow-like capitals, decorated with drop projection. On this is a square plate, supporting a bracket of dwarfs.[1]

The ceiling (1.7m square and 3m high over the top of bracket capitals), in the hall as well as that in the *antarala* and the shrine-chamber is not minutely carved, though its design—that of a lotus—is cut out in high relief.

The sculptures in the niches and corners of the hall, I am unable to describe in detail for the reasons given before.[2] According to Bhagwanlal Indraji, in the south niche is Śiva-Parvati, in the north Kali and in the north-east corner are three figures—Śiva, Pārvatī and Vishnu.[3]

The doorway of the *maṇḍapa*, if not too profusely decorated, is neverthless decorated well. Among the ornaments we notice an *ardhachandra* with a *kirtimukha* on either side, pilasters with pots and foliage and lozenge designs and male and female figures.

The *śikhara* of the temple is broken. A part of it is, however, preserved under the tin roof. From this we can gather that it was of the Ambarnath—Sinnar type, the *śikhara* rising in " a single tower, with fretted vertical bands running up each of its four faces." At its base, on each side, was a *chaitya* window, inset with a *kalasa*, and not with figures of deities. Three of these very *chaitya* windows, perhaps, are now to be found on the north side of the temple, inserted here at a later date when the temple was put into working order and saved from further destruction.

A number of loose sculptures are lying on all sides of the temple. A few of those near the tank, though broken at places, would decorate any museum, while more interesting and unusual figures are to be found in a small shrine in the north-west corner of the temple. The shrine itself, which faces the south, is in utter ruins. On either side of the doorway are found two standing skeleton-like figures facing each other. The one which is discussed here is about 1.2 m high. It faces sidewaysand is standing with knees bending slightly. By deeply cutting the outlines the sculptor has given a vivid idea of a skeleton; protruding eye-balls and sunken sockets, bones of the arms and legs and ribs of the chest. Highly expressive, however, is the profile-face, with its slightly opened mouth, with streaks of a beard on the chin, and the enquiring eyes. Equally so are the gestures of the arms, the right slightly bent, holding a dagger in the incurved palm of the hand, and the left held straight and supporting a *kapāla*-bowl. In medieval sculpture, when conventionalism was rampant, it would be difficult to get a piece of sculpture exhibting any *rasa* so vividly, let alone *bhayānaka* or *raudra*.

1. For detailed measurements of each part see *Bomb. Gaz.*, XVIII, iii, p. 426, n. 1.
2. *Ibid.*, p. 427.
3. *Ibid.*, p. 426.

What can this figure be? Hindu sculpture knows of three such skeleton-like figures. The one is the well-known figure of Chamundi or Kali; the second, perhaps of Bhairava, and the third of sages, Markandeya, for instance.

On comparing this figure with other published figures of Bhairavas,[1] it appears that these skeleton-like figures, are not those of Bhairavas, as mentioned by Bhagwanlal Indraji,[2] but of *Piśāchas*.[3] This is indicated first by the position of the figures—they stand on either side of the shrine-door, as attendants would, and face not the full front, as deities do, but sideways. Secondly, they have two hands only, whereas a Bhairava in any of his 64 (or his 8 main) forms has at least four arms.[4] Hence it is probable that this temple was dedicated to the Bhairava form of Śiva, but these figures are not his.

It remains to be proved that this small, sparsely sculptured shrine of Kukuḍeśvara at Pur belongs to the Yadava period in the Deccan. This I propose to do first by reviewing the style of the medieval temples in the Deccan, and secondly by examining, in the absence of epigraphic or other evidence, the architectural style and decorative motifs used in the temple at Pur.

There is only one dated temple of this period, viz. the one at Ambarnath, built during the reign of Mummuni (or Māmvāni), a feudatory of the Chalukya Someśvara I in A.D. 1060.[5] Similar in architectural style, particularly in the shape of the *sikhara*, though differing in plan and very often less ornate, are : (1) the temple of Gondeśvara and others[6] at Sinnar[7] (which was under the Yadava feudatories of the Chalukyas from about the 10th century); the temple at Jhodgā,[8] and the temple No. 8 at Añjaneri[9] in the Nasik district ; (2) The temple at Vaghli (possibly of the time of Mahamandalanatha Seuna)[10] at Patnā (where certain ruins of temples etc., bear inscriptions of the Yadava feudatories Soideva and Hemadideva),[11] and the temple No. 1 at Balsane,[12] in the Khandesh district; (3) The temple at Velapur and Malsiras (of the time of Yadava Ramachandra)[13] in the Sholapur district; (4) Temple No. 2 at Satgaon[14] and Sakegaon[15] in the Buldana district of Berar; and (5) The temples at Tahakari[16] (*c.* 1130 A.D.?), Ratanvadi,[17] Pedgaon,[18] Kokamthan[19] in the Ahmadnagar District.

1. Gopinath Rao, *Elements of Hindu Iconography*, II, i, pls. xli-xliii.
2. *Bom. Gaz.*, *op. cit.*, p. 426.
3. Rao, *op. cit.*, p. 179, (identifying similar figures in pl. xlii, fig. 3). Emaciated *Pretas* with daggers in their left hands are found by the side of some Yoginīs in the sixty-four Yogini Temple at Bherghat. Also Banerji, *op. cit.*, pp. 80, 81, 83, 85, 89, 90. Unfortunately none of them is illustrated.
4. *Ibid.*, pp. 177-182.
5. Cousens, *op. Cit.*, p. 17.
6. Some of which are earlier and positively Chalukyan in style.
7. Cousens, *op. cit.*, p. 37.
8. *Ibid.*, p. 41.
9. *Ibid.*, p. 46.
10. *Ibid.*, p. 31.
11. *Ibid.*, pp. 28-29.
12. *Ibid.*, p. 23.
13. *Ibid.*, p. 64.
14. *Ibid.*, p. 73.
15. *Ibid.*, p. 74.
16. *Ibid.*, p. 56.
17. *Ibid.*, p. 56.
18. *Ibid.*, pp. 56-57.
19. *Ibid.*, pp. 51-52.

Since these temples and other monuments are distributed over those districts of the Deccan, where Yadava first ruled as feudatories of the Western Chalukyas, and then as sovereigns, and since a particular *śikhara* style runs through this entire period, *c.* 1000 A.D.-1300 A.D., in most of the temples the monuments of the period and region may be called 'Monuments of the Yadava period in the Deccan.'

Temples of the Medieval Period in the Deccan

Thana District.
1. Ambarnath.

Pune District.
1. Pur.
2. Belhe.

West Khandesh District.
1. Balsane.

East Khandesh District.
2. Erandol.
3. Sangameshwar.
4. Gharkhed.
5. Changadeva.
6. Vaghli.
7. Pātnā.

Nasik District.
1. Jhodga.
2. Devalana.
3. Chandor.
4. Anjaneri.
5. Sinnar.
6. Tringalwadi.

Ahmadnagar District.
1. Kokamthan.
2. Akola.
3. Tahakri.
4. Pedgaon.
5. Karjat.
6. Shrigunda.
7. Mandugaon.
8. Ratnawadi.

Satara District.
1. Singhanpur.
2. Khatav.

Sholapur District.
1. Malsiras.
2. Velapur.
3. Pandharpur

Berar.
1. Barsi Takli
2. Satgaon
3. Sakegaon
4. Mehkar
5. Sirpor.
6. Lonar.
7. Dhotra.

Nizam's Territory.
(now Andhra Pradesh)
1. Aundha.

In the architectural style of the Pur temple two things attract our notice. The first is the *śikhara*. It has been mentioned above that it was of the type we first found in the temple at Ambarnath,[1] then at Sinnar,[2] Balsane,[3] Jhodga,[4] Kokamthan[5] and Satgaon.[6] Moreover in these temples of the Deccan there is a *chaitya*-window at the and base of the *śikhara*. The second point in the architectural style is the nature of the shrine chamber. As in the Ambarnath temple it is sunken.[7]

If architecturally the temple resembles many of the important temples of the Yadava period in the Deccan, a consideration of the decorative motifs enables us to fix the age and regional style of the temple more precisely.

1. *Ibid.*, pl. iii.
2. *Ibid.*, pl. xlii.
3. *Ibid.*, pl. xvi.
4. *Ibid.*, pl. liii.
5. *Ibid.*, pls. lxvii-lviii.
6. *Ibid.*, pl. cvi.
7. I regret I cannot cite other instances, for in many cases Cousens is not specific on this point.

As has been said before, the temple is not profusely decorated with figure-sculptures like the temple of Ambarnath, and other early medieval temples in the Deccan. But this is the characteristic of the later temples, for instance, Satgaon,[1] Kokomthan,[2] Jhodga[3] where figure-sculpture is limited to the *jangha*, wall-face of the *maṇḍapa* and the shrine-chamber; where the ceilings contain no figure-sculpture at all but a single floral carving; and the pillars consist of different mouldings but sparsely decorated with the pot-and-foliage or other ornament.

Another strong link still narrows down our field of inquiry. All the earliar temples and some of the later temples also have a figure of a deity in the inset *chaitya*-window on the *śikhara*. Only the Jhodga,[4] Satgaon,[5] and Sakgaon[6] temples have instead a *kalaśa* set in these *chaitya*-windows. Now, an indentical motif of the *chaitya*-window ornament is found in the Pur temple, which though of the same class as other medieval temples of the Deccan, seems to be coeval in time with the temples at Jhodga in the Nasik District and Satgaon and Sakegaon in Berar.

Another characteristic of the Pur temple-designs is the swan-motif. A conventionalized or stylized figure of a swan (*hamsa*) is found decorating the walls (Figs. 1-3). Now this motif is not very common, so far as I know; in Gujarat-Kathiawar only one temple has it.[7] And in the Deccan temples mentioned above, from the published evidence it seems to be figured only in the temples at Jhodga,[8] Tahakari,[9] Pedgaon[10] and Satgaon.[11]

A point to be noted about the Pur temple is that the cult image is served by a Koli and not a Brahmana, Whether it is so from the beginning, or only after the temple was destroyed (?) and given up cannot be ascertained. It may be that the practice is early, because the temple is situated in the jungle. And if further inquiry shows similar practice of having a non-Brahmana serving the image elsewhere in the Deccan also, it would be an important fact ethnographically. But after being described at length by Bhagwanlal Indraji, the temple does not seem to have received adequate attention from the Archaeological Survey because it has been relegated to the third class of monuments.[12] Its archaeological importance has been amply shown, and it may be suggested that either steps should be taken to conserve it properly, as is so ardently desired by the *Pujari* and other people of the place, or its sculptures, etc., should be removed to a suitable place where they can be protected and exhibited, rather than allow them to rot in the mountain fastness at Pur.

1. Cousens, *op. cit.*, pl. cviii.
2. *Ibid.*, pl. lxviii.
3. *Ibid.*, pl. liii.
4. *Ibid.*, pl. liv.
5. *Ibid.*, pl. cvi.
6. *Ibid.*, pl. cx.
7. Burgess, *Antiquities of Kāthiāwād and Kachh*, ASWI., II, pl. xliii, figs. 7 & 15.
8. Cousens, *op. cit.*, pl. lvi.
9. *Ibid.*, pl. lxxiii.
10. *Ibid.*, pl. lxxxiii.
11. *Ibid.*, pl. cvii.
12. It seems that the policy of the Archaeological Survey of India is to conserve and take note of only unique monuments in the Presidency. But by so doing we are likely to lose sight of the cultural importance of monuments which are not unique.

Belhe is 21 miles (33.6 km) south-east of Junnar. Here the "*Hemadpanti*" well is now to be found outside the village to its south-east, amid a fine cluster of mango trees. It is about twenty yards square, and has two entrances, facing each other, or east and west respectively. Each entrance consists of 10 steps.

Two things are to be noted in connection with this well. First, as with the temples of the period in the Deccan and elsewhere, the well is decorated with niches on the inside of the well. In these were probably enshrined images, though now there are none. Further the niches are ornamented with small *śikharas* and ringed-pilasters, simulating minature shrines. There are eighteen such niches, four on the east, four on the west, five on the south and five on the north side. Each niche is about 2.1 m high, 0.76 m broad and 0.45 m deep.

The second noteworthy point is that in the construction of the well no mortar is used. The larger dressed and moulded slabs (each about 1.2m by 0.5m by 0.22m) remained in position without this cementing material as long as the foundation was intact. Wherever this has become weak the stones have fallen out.

Both the architectural decoration and masonry of the well point to a period when such architectural fashions were in vogue. The counterpart or proto-type of the niches can be found in the medieval temples of the Deccan and elsewhere. In the construction—i.e., the shape—of the well there is nothing very much peculiar. But so far no such well has been brought to light, though there are a few references to *Hemadpanti* wells in the *Bombay Gazeteer* and many wells of the type might be existing elsewhere in the Deccan. It seems that they do, for some of my colleagues informed me that they had seen such wells, when they saw the photographs of this. But till now their archaeological importance has not been recognized and hence they have remained in oblivion. As a matter of fact not only have we to search for similar wells in the Deccan but for the type of step-wells which were common in Gujarat and, if we find any, to inquire whether it is due to Gujarati contact. For even this ordinary step-well with its simulated shrines was religious in nature and resembles similar but architecturally more advanced and highly ornate step-wells, for instance, at Pātan and Ahmedabad in northern Gujarat[1] and at Wadhwan in Kathiawar.[2]

1. Burgess, *Architectural Antiquities of Northern Gujarāt*, ASWI, IX, p. 37. pl. iii; for others see pls. civ-cv.

2. Cousens, *Somanātha and other Mediaeval Temples in Kathiawad*, ASI (NIS), XLV, 1931, p. 55, pls. lvii-lix.

JAIN MONUMENTS FROM DEOGARH

Deogarh in Central India is well-known for its monuments which throw considerable light on Gupta art, architecture and religious tendencies. But it is not so well-known for its later and more numerous monuments which enable one to trace the course of Gupta (?), and post-Gupta Jainism, particularly its *yakshi*-iconography and Jain religious Order. There are no less than 31 Jain temples, a number of loose jain sculptures and over 200 inscriptions, the majority of which are dated.[1] But, besides a cursory description of the sculptures,[2] no attempt seems to have been made to study the temples or the sculptures as a whole. Recently a few of the sculptures have been studied and reproduced,[3] but being taken out of their context they do not add materially to our knowledge of later Deogarh (jain) architecture, sculpture or iconography.

A complete study of the monuments at Deogarh would comprise the evolution of architecture as exhibited by the temples, showing how far these are Gupta, Gurjara-Pratihara, Chandrātreya (Chandella) and even later than the last; the study of the sculptures in a similar manner and of their inconography, particularly of the jain *yakshis* and lastly the palaeography of its scores of inscriptions and its contribution to the development of the Nagari.

In the present article a study of the Jain *yakshis* is made and of the palaeography as far as it is relevant for their study.

It is not possible to ascertain the nature and prevalence of Jainism at Deograh during the Gupta or pre-Gupta periods because as yet no archaeological evidence has come forth. But the existence of the sculptures and inscriptions on the pillar at Kahaum,[4] numerous images of Jain *Tirthankaras* from Kosam and other places in the neighbourhood of Allahabad (and now placed in the Municipal Museum there); similar images strewn all over at Eran and other places in Central India, and finally the Jain temples and sculptures at Deogarh permit us to postulate that even in the pre-Gupta and Gupta periods Jainism might have flourished at Deogarh.

1. "*Annual Progress Report, Hindu and Buddhist Monuments*", Northern Circle, 1918, p. 7 ff.
2. *Ibid.*, pp. 12-29.
3. Bhattacharya, *Jaina Iconography*, 1939, Lahore, pls. xii-xvi; Saṅkalia, "Jaina Yaksas and Yakṣiṇis", *BDCRI*, I (1940), p. 163 and figs. 6-11; Shah, "Iconography of the Jaina Goddess Ambika", *JBU*, IX, ii (1940), figs. 2-3.
4. Fleet, *Gupta Inscriptions*, CII. III p. 67; *CASR*, I, Pl. XXIX. Kahaum is in the Gorakhpur District, U.P.

The Deogarh ruins supply abundant evidence for the existence of Jainism. There, in the period which extends over thousand years (*c.* 800-1800 A. D.) the evidence consists of temples, images of Jain *Tirthankaras*, *yakshis* and others and over two hundred large and small inscriptions, some of them still *in situ*.

The inscriptions contain the names of the images, the names of the donors of the images and sometimes of the various categories of the Jain teachers[1]—'*acharya*', '*gani*' and '*pandita*'.

These details show that from the 9th century onwards Jainism flourished at Deogarh. No inscriptions have yet been found of the period preceding this date, but it is probable that even then, in the 7th and 8th century A.D. Jainism was a living religion there.

The available material does not allow to decide the character of the Jainism, whether Digambara or Śvetāmbara when we get the first abundant evidence of its existence at Deogarh. For the earliest inscription Ś. 919 (A. D. 862) mentions only the temple of Śantinatha and gives the names of '*acharya*' Kamaladeva and his '*śishya*', Deva, who set up a pillar near the aforesaid temple. This '*acharya*' the writer has been unable to identify, so far from the known lists (*paṭṭāvalis*) of Jaina teachers.

Jainism of the succeeding centuries however seems to be preponderantly Digambara. For an inscription of Ś. 1016 (A. D. 959-60)[2] mentions Sarasvatī '*gachcha*' and the *Mulasangha*, whereas the *Jinas*, are nude. A figure of Rishabhanātha is dated Ś. 1201 (A. D. 1145-6). It is not improbable that Jainism at Deogarh was mostly Digambara.

The names of the Jaina *yakshis* as well as the iconographic features of the majority of them are different in Deogarh, as the writer has shown before,[3] from those of the traditional Digambara or Śvetāmbara *yakshis*. The question is whether these *yakshis* are different from either of these *yakshi* groups because they conform to a canon of iconography prevalent in Central India, or whether they are much earlier than the canons on the subject, or whether they are merely women attendants with names added afterwards, and not the traditional *yakshis*, because they seem to be associated with the 24 *Jinas*.

These questions may be answered to some extent by cosidering the position of temple No. 12 in the Deogarh group of Jain temples, its architectural style and the place which the *yakshis* occupy there, the figures of the *yakshis* and the placography of the inscriptions on the *yakshi* sculptures.

The Jaina temples occupy the eastern portion of the Deogarh Fort and are enclosed by an inner surrounding wall, the date of which is not known.[4] Nor is it

1. The details regarding these have been analysed and given in the Appendix.
2. Northern Circle, *op. cit.*, 1918, Appendix, No. 138, p. 21.
3. *BDCRI*, I (1940), Appendix, pp. 164-68.
4. *CASR*, I, p. 9.

possible to fix its place and date epigraphically. For the earliest dated inscription No. 49, from temple No. 12, is of Ś. 1105 (A. D. 948-49). Inscriptions of exactly the same period are found from temple No. 11, and an earliar (?) inscriptions from temple No. 2. Nevertheless it is possible that temple No. 12 is one of the earliest of the group.[1] For to the west of it is a porch, one of whose pillars has the earliest inscription[2] in the entire collection, viz. Ś. 919 (A. D. 862-3 A. D.), belonging to the reign of Bhojadeva, the Gurjara-Pratihara king of Kanauj. From this it is clear that the first construction of the Jaina temples can be assigned to, at least, the 9th century A. D.

Stylistically, the massive columns and walls, and the simple *chaitya*-window which adorn the slab over which the Jain *Tirthankaras* are seated and below which the *yakshis* are sculptured seem to succeed immediately the Guptan, *chaitya*-windows, as noticed at Sanchi, Bhumara and Deogarh itself.

The *yakshis* which require discussion are 24 in number. They are carved on monolithic slabs in the inter-columnations of the verandah of temple No. 12, beginning from the west end of the south side. Others, as will be shown below, can be assigned a more or less regional and dynastic date on stylistic and other grounds. Out of the 24 *yakshis* only 20 are briefly noticed;[3] "the remaining 4 being hidden from view by the addition of a later porch."[4]

These figures are regarded as 24 Jaina *yakshis*, special women attendants of the *Jinas*, because each one of them has the name of the *yakshi* engraved on it, and is accompanied by a figure of the corresponding *Jina*. The names as well as inconographical features of many of them differ from the *yakshis* of the Śvetāmbara and Digambara Jains described at length in certain works on the subject. Very few of them possess even the essential inconographical features of the *yakshis*, a number of arms bearing weapons, etc., usually a sitting *lalitāsana* posture, and the characteristic *vahana*, vehicle of each. None of them seems to be accompanied by a *yaksha*, as is generally the case.[5]

Would it be possible that the monolithic sculptures were subsequently inserted in the temple ? Were it a cave-temple it would have been thought that the sculptors had cut out the portion between the present two pilaster-like sides of the figures and inserted or carved out a figure in relief. But in the case of this structural temple it would seem it was not possible to take out first a huge slab from the supporting column and then insert another without seriously injuring the structure. The sculptures of *yakshis*, therefore, seem to be coeval with the building of the temple.

1. Northern Circle, *op. cit.*, p. 10. This inscription refers to the temple of Santinātha and even now the cult image in the dark sanctuary of the temple No. 12 is a colossal statue of Śāntinātha, most probably the original image.
2. *Ibid.*, Appendix, No. 88, p. 15.
3. *Ibid.*, p. 24, Nos. 2234 to 2253.
4. *Ibid.*, p. 9.
5. Both in literary descriptions and many south Indian monuments.

Regarding the inscriptions on these sculptures, the letters for instance of the name Vardhamana on sculpture when compared with similar letters in the 9th century inscription[1] on the pillar of the porch, west of the temple No. 12, do not appear later. As a matter of fact, of all the letters in the pillar-inscription the letter '*ma*' is the youngest and resembles the Nagari '*ma*'[2] whereas '*ja*' and '*ta*' still retain some of their Guptan traits, and letters like '*pa*' and '*na*' seem to be of the transitory period. Moreover the '*ā*' and '*ū*' signs have not not received a definite form. In some instances we find them as in the modern devanagari, whereas in some the vertical '*ā*' sign is indicated only by a loop attached to the right hand top corner of the letter.

If this evidence is accepted as conclusive it follows that the 24 *yakshi* figures are at least of the 9th century A. D. Stylisticallly also the figures, as the writer has briefly shown,[3] belong to the post-Gupta but pre-Chandella period and the names given to them are coeval with the figures.

Further, as names of *yakshis* are given, that is, with a view to informing us of the exact characteristics of the 24 *yakshis*, as then in existance and known to the *sūthradhāra* (sculptor), the gain to Jain iconography is considerable. For, to summarise briefly the main iconographic and other features of the 20 known *yakshis* at Deogarh: Eleven *yakshis* are two-armed, and seven four-armed, (about Sulochana and Sumalini there is no information). They are standing in *tribhanga* or *samabhanga* pose, unlike the later *yakshis* who are seated in *lalitāsana*. One of the hands of the lesser known and figured *yakshis* is always placed on the waist, or more properly on the thigh ; only a few of them seem to have attendants.

One called Arkarbhi has a *vahana* which looks like a swan. Chakreśvari had already come to be known by her symbol *chakra*, while others, Padmavati for instance who is also figured four-armed, had still to acquire their characteristic emblems.

The iconography of the *yakshis* seems to be at this period in a formative stage, though already the rest of the *Tirthankaras*, besides Mahavira, Parśva, and Rishabha had come to be associated with *yakshis*.

How far this conclusion, arrived at from purely limited Deogarh archaeology, is correct remains to be tested by further exploration and study of Jain works on the subject. For within a couple of centuries Deogarh witnessed the development of the *yakshi*—iconography as evidenced by the figures of Chakreśvari and Malini and others. Was this—a number of arms, emblems, *vahanas*, and fearful names—due to Tantric

1. The plate is published in *CASR*, X, xxxiii, 2, and the text in *Epi. Ind.*, IV, p. 310.
2. The only difference between it and the Devanagari '*ma*' is that the latter has a complete vertical top stroke, while in the former it is still broken or incomplete. This and other characteristics described above of the 9th century Nagari are also seen in the stone inscriptions of the Gurjara-Pratiharas. cf, for instance *Ind. Ant.*, XV, p. 112 ; *Epi. Ind.*, XIV. p. 184 and XIX, p. 60.
3. *BDCRI*, I, (1940), notes on figs. 8-11.

influence ? It seems so, for works like the *Nirvānakālikā* (*c.* 700 A. D.) are already redolent with Tantric formulas, only the full fledged *yaksha* pantheon is missing. This is supplied by Asadhara (*c.* 1300 A. D.) in his *Pratiṣṭhāsāroddhāra*. Does this work codify the then existing state of *yaksha-yakshi* iconography or lay down a canon for the sculptors and laymen to follow ? For, so far, not all the archaeological specimens described in this and similar works[1] have been noticed from Deogarh or from Khajuraho in north India (where there is a group of Jain temples) or from Śrāvana Belgola in south India where also a great number of Jain images are said to exist.

1. *Siri-Vaṭṭhusāra-payaraṇa*, Jain Vividhgranthamālā, Ajmer, 1936. This work follows almost literally Asadhara's work in the discription of Digambara *yaksha-yakshis*, the only new addition being a couple of more descriptions of Padmavati.
Similar descriptions are also given in *Devatāmūrtiprakaraṇam* and *Rūpamaṇḍanam*. Calcutta, 1936.

APPENDIX

Names of Jaina Teachers from Deogarh Fort Inscriptions

Letters (S),(D) in brackets after the names denote the Jain *Sangha* to which a teacher belongs, e.g. *Mula Sangha* has 'nandi, chandra, kirti, bhushana; S=*Sena Sangha*; D=*Devasangha* ; Simha=*Sinha Sangha.*

Name	Date	Reference *CII*, III.	Location	Appendix A. *'Progress Report Arch. Survey'*, Northern Circle ,1918.
1. Devendrakirti (S) disciple of No. 4 Sarasvatī *gachcha* and Mūla sangha	V.S. 1016	Ins. No. 138	near the *Baoli*	p. 91.
2. Madhavachandra(S)		,, 85	Temple 12	p. 17.
3. Nemichandra(S)	V.S. 1709	,, 26	,, 4	p. 14.
4. Ratnakirti(S)	V.S. 1016	,, 138	near the *Baoli*	
5. Śrīdeva(D) disciple of No. 6	V.S. 919	,, 88	Temple 12	p. 17.
6. Śrīkamaladeva(Deva) teacher of No. 5.	,.	,,	,,	,,
7. Tribhuvanakirti, disciple of No. 4.				
8. Vīranamdi(S)		Ins. No. 5	,. 1	p. 12.

Muni

1. Subhadevanātha (Deva)	c. 11th century	Ins. No. 23	,, 3	p. 13.

Panditas

1. Ajitasimha (Simha)	(V) S. *c.* 1113	,, 8	,, 8	p. 12.
2. Gunanandin (S)		,, 112	,, 21	p. 19.
3. Gunanandin(S) disciple of No. 6		,, 17	,, 2	p. 13.
4. Laladeva		,, 22	,, 3	p. 13.
5. Lalitasimha(Simha)		,, 8	,, 1	p. 12.
6. Lokanandin(S), teacher of No. 3.		,, 17	,. 12	p. 13.
7. Mādhavanamdi(S)	Ś. 1220	,, 95	,, 13, 16	p. 17.
8. Sukhamkaradeva(Deva)		,, 22	,, 3	p. 13.

ACHARYAS

1. Jayakirti(S)	(V) S. 1207	Ins. No. 19	Temple	4	p. 13
2. Kīrtyāchārya		,, 90	,,	2	p. 13
3. Śrī Nagasena(Sena)		,, 99	,,	14	p. 17
4. Yaśaskirtti (S)	(V) S. 1121	,,	,,	18	p. 18

in front of Rajyapala's *maṭha*

SOCIO-ECONOMIC AND GEOGRAPHICAL BACKGROUND OF KHAJURAHO

Khajuraho is one of the finest creations of man. The extant literature (which is considerable), however, barely discusses or even mentions the geographical background as well as the economic and sociological factors which lie behind this creation, though occasionaly a brief historical note is appended. For, almost all writers[1] have been charmed by the exquisite figure sculpture which adorns the outer and inner walls as well as the ceilings of the interior and with the symmetrical proportions of the temples. Here is an attempt to discuss briefly factors which made it possible for these magnificient temples to come into existence, and which possibly also account for the pronouncedly erotic element in its sculpture.

The Khajuraho temples, now about 25, though formerly said to be 85 in number, form a veritable temple-city (fig. 4) in surroundings which are forested. Whether one approaches these temples from Satna *via* Panna, that is from the east, south-east, or from Jhansi and Chhatarpur in the west, north-west or Mahoba in the north, one sees nothing but a flat sandstone plateau, occasionally relieved by steep, flat-topped hills, shallow wheat fields and a few lakes. Much of the forest is natural or primeval with plenty of game and must have been there when the temples were constructed.

We do not know what route Cunningham followed in 1862-63. He saw all the monuments enveloped by thick vegetation, but he gives no other details of the countryside *en route*.[2] Possibly the western approaches to Khajuraho are slightly better and were not so forested, because within 6.4 km from Khajuraho, Cunningham mentions one Rajnagar. Though no old remains at or from this place are referred to, the name is very significant. And if the place is *really* old, it might be the site of the ancient city of Khajuraho, the present site being the religious centre only. This indeed is an important point which can only be determined by a thorough exploration.

Near Khajuraho there is a solitary granite hillock, which supplied stone for the earliest crude temples there, viz. the 64-*Yoginī* temple. Much earlier, some thousands of year, ago, man utilised the dyke basalt in these hills and made polished stone axes, (unfortunately these have not been reported in official publications) whereas another Stone Age Man made small tools (microliths). These have been found in hundreds

1. Excepting a sentence by Fouchet, when he describes Khajuraho as an island won from the surrounding jungle. cf. Fouchet, Max-pol., *The Erotic Sculpture in India* (tr. Brian Rhys), 1959, p. 66.
2. *CASR*, II, p. 412.

by a former guide-lecturer, Shri Kumar, on the banks of the river Khuddar. Thus there is little doubt that this forested region, the extent of which is considerable, was the abode of Stone Age Man, and the tribal people, until the Chandellas built the temples.

This statement is of course, subject to correction. For, if we agree with Cunningham then the region around Khajuraho was included in Jajhotia (Sanskrit Jejabhukti), supposed to be mentioned by Yuan Chwang. Its extent, according to Cunningham, was the same as that of Bundelkhand, and indicated by the distribution patterns of Jajhotia Brahmanas.[1] In 1862, there were 162 houses occupied by 7 different divisions of these Brahmanas and 11 houses of Chandela Rajputs, the chief claiming descent from Paramal Deo.

In 641 A.D. when Yuan Chwang visited the capital of this Jajhoti, he had noticed several Buddhist monasteries, and only 12 Brahmana temples; the king, though a Brahmana, was a Buddhist.

Cunningham once thought that the several mounds with bricks protruding from them were the remains of these monasteries, but very little evidence of the former prevalence of Buddhism was later found, and hence his entire theory remains unproven. It can be tested only by excavations.

However, a careful reading of Yuan Chwang's *Travels* shows that neither the identification of Cunningham, nor that of Vincent Smith of the traveller's *Chih-Chi-to*, (*Chi-ki-to*, according to Beal[2]) with Khajuraho or Eran is right. For the modern equivalent of this Chinese name is Chitore. Further as Hiralal[3] has pointed out the name of the capital in Yuan Chwang's times *cannot* be *Jajhoti*, for this according to Smith[4] was from the first ruler 'Jejāka', but this was two hundred years after Yuan Chwang! Again both these places have not yielded anything of Buddhist nature, while the area around Khajuraho is not fertile, though Eran does lie within a fertile belt. Smith, however, seems to be right in holding that the place first sprang into prominence under the Chandellas, who racially might be a mixture of aboriginal tribes and Kshatriyas.

In their inscriptions the place is called Khajuravāhaka (one having a grove of date palms), though now not a single date palm is to be seen here. A few date palms were seen by Cunningham, and he also cites a legend according to which the city gates were adorned with Khajura trees, one each on either side of the entrance.[5]

Why was it then that the Chandellas, who were in the 9th century feudatories of the powerful Gurjara-Pratiharas, after asserting their independence in the next century, chose to build temples in this remote forested region? The reason seems to be that

1. *CASR, op. cit.*, p. 413
2. Beal, Samuel, *Buddhist Records of the Western World*, II, 1906, p. 271.
3. *Epi. Ind.*, XX, p. 126.
4. *Ind. Ant.*, XXXVII, p. 114.
5. *CASR*, XXI, p. 55

near about Panna, they found not only excellent sandstone but also diamonds. Otherwise, as mentioned above, the region is not fertile, the soil cover being very thin.

This has also been noted by Mitra[1] who says that compared to Malwa, the soil of Bundelkhand is poor, being sandy and often strewn with boulders. Hence, we are unable to understand Yuan Chwang's observations that Bundelkhand was famous for its fertility.

No doubt, one does behold some wheat fields in the eastern parts of modern Khajuraho, but these probably occupy the place of former Khajura lake seen and illustrated by Cunningham.

So mere land revenue, and tributes from their vassals would not be sufficient for such a stupendous building activity extending over two centuries and more. It was possible that with Panna diamonds the Chandellas could mint gold coins, as their surviving coinage testifies.

The extant coinage belongs to Kirtivarman and his successors. This comprises of gold *drammas* (between 61-63 grains), half *drammas* (above 31 grains) and quarter *drammas* (15 grains) and copper quarter *drammas*. It is not clear whether it is to this gold coinage that the Chandella inscriptions refer when they speak of *pala* and *hāṭaka*.[2]

Chandella epigraphs themselves provide some evidence to this effect, though hitherto it has not been interpreted, as done by me. Mitra has cited a late Chandella inscription, which specifically refers to *Nikshepa* (underground deposits) and *Pāshāṇa* (stones).[3] These were two of the eight sources of the states' share of the profits (*bhoga*) derived from the possession of the particular kind of land. Though these eight are well-known and oft-repeated sources of revenue, still it is not a little significant that Chandella inscription should pointedly mention these sources of States' revenue.

There is another factor as well. The kings had not to spend anything for the stone, for the quarries belonged to the State according to immemorial Indian law and also sanctioned by Hindu law then and repeatedly mentioned in inscriptions. And these stones were probably transported by forced labour, as a very fine frieze in the Khajuraho Museum brought to my notice by Shri Sarveshvarananda shows.[4] In this frieze a large number of labourers is shown carrying stones by tying them on to a long wooden pole.

The only expense the kings had to incur was the payment to sculptors. This payment might have been done in kind, in gold or even in diamond. We know that the famous Jain ministers Vastupala and Tejahpala of 12th century Gujarat paid their workers in gold dust for building the temples at Mt. Abu.

1. Mitra, Sisir Kumar, *The Early Rulers of Khajuraho*, 1958, p. 11.
2. *Ibid.*, p. 182.
3. *Ibid.*, p. 165: also *Epi. Ind.*, XX, p. 136, p. 12.
4. cf. Sivaramamurti, C, *Indian Sculpture*, pl. 1.

The Khajuraho temples unlike some of the famous temples like Modhera, and Somnath in Gujarat, or Halebid and Belur in Mysore, or those in further south, seem to have been meant exclusively for the king and his small group of courtiers. The temples are said to be "compact", and though the *Śikharas* of the Kandariya Mahādeva and the Lakshmana (fig. 5) temples soar up like a Himalayan peak, still they are *unimpressive* from the point of view of their size.

This is true notwithstanding the fact that these temples show a logical development from the very small, early Gupta temples, situated a little further south-west, south-east, at Bhumara, Nachna, Deogarh, to be followed by the 7th and 8th temples at Nachna, Tigowa and the Gurjara-Pratihara temples at Barwasagar, District Jhansi and at Mankhera, District Tikamgarh and the early 10th century temples at Sandara, Ruhavi in north Gujarat, and others in Saurashtra, Rajasthan, south U. P. and Orissa.

Percy Brown,[1] Stella Kramrisch,[2] Krishnadeva[3] and Saraswati[4] in recent times and Cunningham, Coomaraswamy, Fergusson much earlier have rightly bestowed paeans of praise on the admirable proportions of the various architectural numbers of Khajuraho temples, particularly the Lakshmana and Kandariya temples and the effect they produce in their totality on the onlooker though Cunningham[5] did point out the grotesqueness about the fore part of the elephants suddenly protruding from the base of the *śikharas* out into the sky ; still no one seems to have touched the functional aspect of these or other contemporary temples. What Kramrisch has done in the *Hindu Temple* pertains to the architectural aspect of the temples, but not to their usage.

At Khajuraho, the various parts of the temple, the entrance passage (*ardhamaṇḍapa*), flanked by balconies at a very high level, then the *maṇḍapa*, followed by the *mahāmaṇḍapa*, and *antarāla* are unusually small. The *garbhagriha* was traditionally small, and is so here. For it was meant only for the chief *pujari*, who performed the daily ceremonies from morning till night at fixed hours. But what about the special *pujas* when at least three or four additional *pujarīs* are necessary ? In summer months, even a couple of *chamara* bearers would be necessary (both for the deity and the priests !).

The *antarāla* might accommodate a few devotees, and a few might stand in a row in the *maṇḍapa*, but the *mahāmaṇḍapa* is unusually small. The *mahāmaṇḍapa* of the Lakshmana temple is 3.5 metres or about 12 ft. square. That of the Kandariyā Mahadeva is not much larger, whereas in the Jain, temple the *maṇḍapa*, *mahāmaṇḍapa* and the *garbhagriha*, for some reason, are of the same size[6] but nevertheless small. The fact is also noted by Percy Brown.[7]

1. Percy Brown, *Indian Architecture*, 1956, p. 136.
2. Kramrisch, Stella, *The Hindu Temple*, 1946, pp. 210-12 and 254-55.
3. Deva, Krishna, The Temples of Khajuro in Central India, *AI*, 15, pp. 55-57.
4. Saraswati, S.K., *Indian Sculpture*, 1957, pp. 56-72.
5. *CASR*, II, p. 423.
6. *Ibid.*, X, p. 17
7. Percy Brown, *op. cit.*, p. 179.

Thus only a few persons could go in these temples at a time. However, what would be the function of the *mahāmaṇḍapa* ? Some of the functions, as we observe from the practices which have survived—are the holding of religious discourses, discussions, singing of devotional songs, and above all, the performance of dances by the temple dancers (*devadāsis*), probably daily. These dances, though meant primarily for the entertainment of the deity and its attendant priest, should have been witnessed by the king, his queen, a few courtiers and some section of the public.

But looking to the size of the *mahāmaṇḍapa*, one has to admit that at Khajuraho after this *maṇḍapa* was furnished with carpets and pillows—or even if it was not furnished for it being a temple all persons including the king and his queen were expected to stand all the time when the dance or other performances went on—it would hardly accommodate 10 persons comfortably, and would leave little room for the dancer to move about freely.

That the dances did take place in the temple is certain. The best evidence is provided by the figure-sculpture, both inside and outside the temple. Practically every female figure, and some male ones too, exhibit some sort of dance pose, whereas there are sculptures and scenes which depict specific dance poses. Indian dancing at its best and in its wildest mainfestation is portrayed at Khajuraho. And this could not have been possible without the more-than-ordinary patronage by the king and intense love for and interest in dancing by the people.

There is also documentary evidence that the institution of the dance existed in the Chandella kingdom. An inscription on a pillar in the Nilakantha temple at Kalanjar, dated Samvat 1186 (A.D. 1129-30) in the reign of Maharaja Sri Madana Varmadeva refers to the Mahāpratihāra Sangrāmasinha and Mahānāchani Padmavati.[1] Besides giving us a Prakrit (or NIA ?) form of the word *nartakī*, viz. *nāchāni*, the record tells us in unambiguous terms that there was a regular hierarchy of temple dancers in the Chandella temples. Other Chandella inscriptions allude to dancing and singing on special festive occasions, to *suratakriḍā* (love-sports), *krīḍāgiri* and *kelisarasi*.[2] These do not seem to be conventional references. For this is exactly the picture which the Khajuraho temples create before us, though as mentioned below, the figures of men and women are idealized. Though pulsating with life, few of these figures are from life, and much less from the region around Khajuraho.

All these considerations force us to conclude that these temples were built primarily for the king and his nearest courtiers and/or the certain sects which besides worshipping deities like Śiva and Vishnu, also engaged in esoteric rites which might be regarded now as highly questionable.

1. *CASR*, XXI, p. 34, pl. X.
2. *Ind. Ant.*, XVI, p. 201., l. 5; *Epi. Ind.*, I, p. 125, v. 13 and Mitra, *op. cit.*, p. 179.

Such a conclusion might further explain the absence of vestiges of any *large* town or city near about Khajuraho. Cunningham, as shown above, had inferred about the existence of an earlier habitation with a number of Buddhist monasteries. This conclusion remains unproved in the absence of any attempt to locate the actual habitation site by systematic excavations at Khajuraho. During my second visit, I did notice a number of small mounds along the banks of the Khuddar river. These certainly hide brick structures but whether these are square or round *stupas* and/or residential houses is anybody's guess. Small excavations should clarify the problem, (though whether the mounds will reveal traces of earlier habitation is doubtful, for the mounds indeed are small).

This much is however certain that at least two groups of temples, the western, row represented by Visvanatha, Lakshmana, Kandariyā and Jagadamba and the eastern, represented by the Ghaṇṭāi and other Jaina temples once stood on the edges of two lakes, called Sibsagar and Ninoratal or Khajur Sagar respectively by Cunningham.[1] One of these lakes, "about a mile in length and surrounded by idol temples" was seen by Ibn Batuta in about A.D. 1335. These lakes must have made a temple city still more beautiful, besides reducing the heat and making the area habitable during the summer. If the lakes and their precincts could be kept clean, then it would not be a bad idea to revive these lakes, though the present lawns with glorious bougainvillas make the site beautiful.

That a comparatively small number of people—a temple priest and other Brahmanas, king's courtiers (and the king himself with his wives on special occasions at least) and other necessary staff—a few merchants and shop-keepers and farmers and a fairly large colony of sculptors and labourers—must have been staying at Khajuraho goes without saying. Unfortunately no attempt has been so far made to collect this evidence, which can come from planned excavations alone.

The remote situation of these temples and their exclusive use for the kings might also explain the rather unusual erotic element in these temples, though there are other explanations as well. In the first place, Hinduism has given an equal place to love (*kāma*) in its four-fold scheme of life. And that is the reason why we have works like *Kāmaśāstra*. Secondly, the erotic figures have a long history in India. Some of the terracottas of *mithunas* (couples) are as old as the 3rd century B.C. However, what is unusual at Khajuraho, next to Konarak in Orissa, is the depiction of men and women in most unnatural positions. A woman in a sitting position is being held by two of her attendants and a man with his head and shoulder on the ground is copulating with her. Actually this pose of the man recalls a yogic *asana*, called *Śirasāsana*, and is recommended for the retention of semen. Here, of course, is its most unusual use. (pl. 12)

1. *CASR*, II, pl. XCV.

It is not impossible that here the Khajuraho sculptors had in view a Tantric practice wherein in spite of copulation the man is believed to have controlled the ejection of the semen. This possibly explains some of the Tantric poses in Khajuraho temples.

These further had a much higher aim than mere physical enjoyment of the senses. As Pramodchandra has explained in some details, the sects of the Śaivas—the *Kaula* and *Kāpālikas*—enjoined the use of five *makāras* for the realization of the *kula*, "the state in which the mind and the sight are united, the sense organs lose their individuality, *śakti* becomes identical with *jiva*, and the sight merges into the object to be visualized".[1]

This is conceded by Kramrisch and Mulk Raj Anand.[2] Khajuraho not only depicts the final stages of spiritual and physical oneness—complete and full union of *Purusha* and *Prakriti*—but the earlier stages, right from the first initiation of men and women before a *guru*, and even the orgies committed by the *guru*, *sishyas* and their attendants. However, artistically represented, they certainly appear revolting and cannot be explained away philosophically.

It is in this respect that the Khajuraho erotic scenes differ markedly from the Tantric Buddhist *Yab-Yum* images, or images of god and goddess in close embrace of Vajradhara, Vajrasattava.[3] This is nothing but *Prajñopāya* knowledge (*prajñya*) embraced by *upāya* (universal compassion). Whether seated or standing the latter do indicate inner oneness, and not voluptuousness and sensuality ; a little smile on the face of the figures, the result of *ananda*, as opposed to physical delight. Above all, these are cult images to be worshipped, and the *Yab-Yum* image particularly was to be meditated upon and worshipped in secret. This is in marked contrast to the various stages of physical oneness (love-making) portrayed at Khajuraho and at Konarak. However, it is possible that the source of all such cults was Bihar-Bengal, Orissa, Nepal-Tibet, or Eastern India in general. And what we have at Khajuraho is their western and southernmost expression, *nothing* like *that* being found in the Kalachuri monuments in the immediate neighbourhood or monuments further afar, except conventional love scenes.

The portrayal of orgiastic scenes as at Khajuraho is likely to tempt and excite the onlooker as they indeed do, proved by the interest with which men and women look at the sculptures at Khajuraho or read books about them. However, this corruption of the mind on a mass scale was not possible a thousand years ago for the remote situation of the temples and that too in an otherwise forested environment would preclude a large number of people from visiting the temples. Hence the Śaiva sects of the *Kaulas* and *Kāpālikas* under the patronage of the Chandellas, but not actual participation by the kings and their wives as inferred by Goetz practised and left for the posterity to have a view of these secret practices on the walls of the temples at Khajuraho. These scenes vary from the revolting to the sublime. But whatever their character, some of

1. Pramod Chandra, 'The Kaula Kapalika cults of Khajuraho' *Lalit Kata*, 1-2, 1956, pp. 98-117.
2. *Marg*, X, pp. 24-25.
3. Bhattacharyya, B., *The Indian Buddhist Iconography*, 1924, pp. XXVIII, 6.

them are the finest specimens of plastic art and in these one has to include a few of the orgiastic scenes depicted on the wall faces of Kandariyā Mahādeva and Lakshmana temples. For, these are perfect pictures of composition, each figure a living one and having its individuality. Compare, for instance, the tranquillity on the face of the man performing *Śirsāsana* with the gentle smile on the face of the woman shown in profile. She is indeed delighted, as indeed she should, according to Vatsyayan, in spite of the very unusual pose, while the man has to perform a most different task physically as well as emotionally as required by the Tantric rite and objective.

With regard to scenes depicting unnatural acts between man and man, woman and man, between man and beast, these but reflect what an average man in India thinks and talks. There is not a sentence where these unnatural acts are not mentioned, and this practice has a history. Though absent in classical dramas of Kalidasa and others, the 5th century One Act plays, known as *Bhāṇas* refer to a large number of abuses and vulgar expressions. The *Pādataditakam* and others depict real life, as was lived by common man and even aristocrats and monks.[1] Whereas, the unnatural act between an ass and a woman was regularly depicted and described all over India, at least by the 10th century to protect land grants from being taken away by the succeeding generations of kings.[2] This is popularly known as "the ass curse" and its wide-spread use in official documents shows how Hinduism had fallen from "grace."

It is, however, quite possible, though the intermediate links in the chain are missing, that this is a late popular or vulgar and debased version of the practice described in the Vedic texts like the *Taittīrīya Samhitā* in the *Aśvamedha* (horse-sacrifice), where the queen is said to have sexual relations with the sacrificial horse.[3] The Bālakānda of the Ramayana also tells us that Kauśalya spent one night with the horse.[4]

Such a practice, though having a religious sanction behind it must have been abhorred by all sections of the people, even in Vedic times! Hence, no wonder that when this religious aspect was forgotten in much later times, the practice was rightly regarded as a "curse", which was not only invoked at the end of a land grant but also depicted in sculpture. And to make the curse more telling or effective, the horse was substituted by an ass. Fouchet, in his otherwise fairly exhaustive survey, has missed such erotic sculptures, as well as their likely Vedic origins.

Khajuraho does not begin but mark the end of a thousand and more years of architectural and sculptural activity in the red Vindhyan and Kaimur sandstone. It began at Sanchi and Bharhut under the Mauryas and Sungas (and later spread to Mathura under

1. Keith in a footnote to the translation of the *Taittīriya Saṁhitā* says, 'on what authority I do not know, that the queen also protested against this practice, and it was regarded as obscene even in Vedic times' also Dumont, P-E., *L 'Aśvamedhe*, 1927.
2. Moti Chandra and Agrawal, V.S., *Srinagar Hata*, Bombay, 1960.
3. *Ep. Ind.*, XXVI.
4. *Ramayana*, Balakanda, 14.34.

the Kushanas) who built Buddhist *stupas* and adorned them with scenes from the life of the Buddha. These monuments were truly for the masses, as the Buddha's gospel explicitly was. Some of these sculptures—particularly the nude tree nymphs—show the frank delight in life, and one does get a glimpse of the contemporary life—houses, the true physiognomy of the people, their dress and ornaments, games, trading methods, (the then current coins), tools and weapons.

With the emergence of classical Hinduism under the Guptas, this folk art disappeared. Their small temples at Bhumara (in the former Nagod State and within a radius of 80-112 km. from Khajuraho) introduce spiritualized figures of gods and goddesses. The faces exhibit an inward calm, whereas the supple, graceful limbs pulsate with life.

At Khajuraho more than anywhere else in India, these classical Gupta features have been taken to perfection. One has only to behold figures of Śiva and Parvati or Revati and Balarama looking at each other, "almost eating each other up with soul-consuming love." And the artist has taken the next logical step to show them in close embrace, their bodies gracefully entwined like freshly sprouted creepers. No better example of ecstatic joy can be found in Indian sculpture.[1] But this the artist had done endlessly and consequently fallen. Within two hundred and fifty years, he has exhausted himself, (as any art tradition would be, unless reinforced by new ideas), as we feel satiated after beholding these figures on temples after temples. These remarks are well-illustrated by the figure sculpture on Duladeo temple, where the former grace and suppleness of form have begun to decline. The figures are stereotyped and overburdened with decoration.

Unlike Bharhut, all figure-sculpture at Khajuraho, as elsewhere in India, symbolises eternal youth, and that too of an idealized type with slender and supple body with sharp aquiline facial features. In the Khajuraho world, there is no room for a matron, a child or an old man, (barring one exception) or the people in whose midst this temple city was planted. No doubt, the frieze round the *adhishṭhāna* (basement) of the Lakshmana temple does portray several scenes – an army on march with camels, horses and elephants, or a sage, dancers or orgiastic scenes. But many of these scenes are conventional. Likewise, faces of a few women are slightly rounded, and the figures seem a little heavy but nevertheless these are of young women. The observation of Ganguly[2] is not quite right. The human form is idealized and is perfect to a degree, but far removed from life. Later, these figures too become wooden, without any life. Strange as it may seem, even these wooden forms are in demand in the world art market, and just before I visited Khajuraho, two of the bracket figures in the Duladeo temple had been violently broken from above the feet and trucked away. Thus, if the Khajuraho world was one-sided, so is ours. Its appreciation is blind.

1. My colleague, Dr. S.B. Deo cites a slightly later, but identical attitude from Jñaneśvara.

2. Ganguly, O. C., *The Art of the Chandellas*, 1957.

EARLY EPIGRAPHICAL EVIDENCE OF THE PREVALENCE OF JAINISM IN GUJARAT (SAURASHTRA, WESTERN MAHARASHTRA AND ANDHRA PRADESH)

Much is known about Jainism in Western India. Much more however remains to be known. Recently discovered inscriptions in the Bhaja and Karla caves near Pune and in Guntupally in Andhra Pradesh lend support to the theory of earlier prevalence of Jainism in Saurashtra, Maharashtra and Andhra Pradesh.

These 'sermons in stones' inspire the hope that if a regular search is made we would definitely find archaeological evidence of the earlier prevalence of Jainism in Western India.

Lack of interest and paucity of funds have stood in the way of undertaking these explorations.

Mahavira was a senior contemporary of Gautama Buddha. Traditionally he was the 24th *Tirthankara*, and though we have no archaeological or historical evidence for the existence of all the 23 earlier *Tirthankaras*, the historicity of the 23rd *Tirthankara*, viz. Parsvanatha, is generally accepted. There is little doubt that the religion preached by Mahavira had an earlier start, and both Jainism and Buddhism first spread in Bihar, and then in Western U. P. Later, under Aśoka, Buddhism spread almost all over India, and in the borderlands like Simhala (Sri Lanka) and Gandhara (Afghanistan).

Jainism had also spread, according to an old tradition, to several parts of India, and particularly in the South when Chandragupta Maurya, after he retired as a king, took to Jainism and migarated to south India.

Unfortunately little historical or archaeological evidence was available all these years to support this legend or tradition.

Now during the last seven-eight years definite evidence has been found in Maharashtra and Andhra Pradesh which lends support to the earlier discovery of an inscription in the cave known as Bawa Pyara at Junagadh (Gujarat-State). Both these discoveries as well as the earlier one at Junagadh not only give the hope that if a regular, planned, search is made in these and other parts of India, then we will definitely find archaeological evidence for the earlier existence or prevalence of Jainism. Unfortunately, little is done in this direction, because of lack of interest, planned exploration and particularly funds for undertaking these explorations. It is hoped that on an occasion like the present one (Mahavira Jayanti), definite plans will be chalked out and a fund also created for this purpose.

Of all the three epigraphical evidences, the one in Maharashtra is extremely important, because it opens up a new vista in time and space. For, as will be shown below, the inscription was dicovered in the hitherto unknown and unexplored range of hills around the famous Bhaja and Karla Caves, not far from Pune. Secondly palaeographically the inscription definitely belongs to the early part of the 1st or the end of the 2nd century B.C. Thirdly, its *mangalācharana* is indeed unique for the time and region it belongs to. The existence of a cave with an inscription in a hill range near Pala was brought to my notice by Shri R. L. Bhide in 1967-68.

The cave is situated about 12.8 km off the main Bombay—Pune road from Kamshet. Crossing the railway lines and the Indrayani river we reach by a *kaccha* road the small village Govitri on the stream Kundalika. From here, climbing over a broad terrace, called locally Patangana and leaving the village of Pala on our right, we reach the foot of the hill from where the cave can be seen, though its slope is thickly covered by vegetation. A difficult climb takes us to the cave, which is about 20 m high from this point, and faces the east. Like the Bhaja, Karla and other caves, it commands a magnifficent view of the velley, for miles around. On our right we see the small meandering Kundalika, and on the left the steep, bare scarp of this group of hills, which from an acute 'V'. Numerous rice field at various levels lie in between, with their yellow and green tops making the whole scene very picturesque.

The cave is now 22.75m long and 5.67m broad, and 7.27m high. The ceiling is probably incomplete, as we can clearly distinguish between the finished portion and the lower unfinished portion. Further on the left hand wall of the cave, there is cell with a b nch. The cell measures 1.27 m × 1.2 m × 1.21 m.

The inscription is carved on the same wall, just near the original entrance, almost at eye level, about 2m from the ground level. Below is carved out a cistern (*podhi*) which is referred to in the inscription.

The inscription (pl.13) is carved on a specially prepared space which is about 50 cm × 40 cm ; the actual engraved area occupying being an area of 39cm × 17cm. It is in 4 lines. the first line contains 10 letters, second 11, the third an identical number and the fourth only 2. The letters are bold and deeply carved, their average size being 3 cm.

The importance of this record lies in its palaeography, and still more in the opening words, *mangalācharana*, and incidentally in the words [*Kātuna* (*a*?)], *Indarakhita*, *and kali*.

The language of the inscription is Prakrit influenced by Sanskrit, The following noteworthy forms of ordinals occur *Kātunam* (*Sk. Kāritva.* absolutive) *Indarakhita*[1] *Indrarakshita*). So far as the absolutivie from *Katuna* is concerned it may be pointed out that

2. For enlightening us on the language of the inscription, we are thankful to Prof. M. A. Mehendale.

the similar absolutive form occurs in the word *Abhivadetunam*[1] in the Calcutta-Bairat Rock inscription of Aśoka.

So far some 1500 early Brahmi inscriptions have been recorded.[2] Of these about 350 are from the caves of Western Maharashtra. From among these, some 105 records are of the pre-Christian period from the caves of Bhaja, Bedsa, Kondane, Kuda and Kol. But it is curious that not one of these inscriptions have any invocation (really *mangalā-charana*) at all. The records simply say, "This is a gift or meritorious gift (*dharmadeya*) of so and so. A cave at Junnar has the *svastika* symbol at the end of the inscription. In all the later records of the Śatavahanas and the Kshaharata Kshatrapas, appear the word "*Siddham*". This is not an invocation nor a *mangalācharana* in the full sense of the word. Thus we have no means to regard a cave Buddhist or of any other faith, except by its other contents and or the association in which it appears.

Still later, in the 6th-7th century, we have the proper invocation or *mangalā-charana* context, "*Om Namo Bhagavate*".

As opposed to this the invocation '*Namo Arhamtānam*' occurs in a definitely Jaina context on the *āyagapatas* and images from the Jaina *stupa* at Mathura, datable to the early centuries of the Christian era, and in the inscription of Kharavela from the Udayagiri cave, Orissa, belonging to an earlier period.

This evidence is discussed at some length in view of its importance at Pala.

In Mathura, there is an invocation to *Arahamta* in five cases,[3] whereas in another case, word *Siddham* is added to the expression.[4] In another, the image is dedicated to Arahamta.[5] At Pabhosa, the cave is meant for the Kasspiya Arahamta.[6]

At Udayagiri, Orrissa, there is a definite invocation to Arahamatas and all Siddhas.[7] And this, like Mathura, is a well accepted Jaina cave. In the next record from the same place, the cave is excavated in honour of *Arahamaas*.[8]

Besides the occurrence of the full expression *Namo Arahamatanam* in a context which is undoubtedly Jaina, the word *arhat* occurs eight times,[9] the word spelt as *Arahat* four times, *arahat* twice,[10] *arahamta*[11] and *arhat* once.[12]

In the first group (*arhat*), twice it stands for *Jina*(37), and *Nandavarta* (47) respectively, whereas in records 59, 74, 76, 94, 83 and 103 there is an invocation to *Arhat*,

1. *CII*, Vol. I,. p. 172.
2. *Epi. Ind.*, Vol. X, Appendix by Lüders and some additional inscriptions published in *Epi. Ind.*
3. *Ibid.*, Vo., XI, Appendix Lüder's Lists, Nos. 105-108.
4. *Ibid.*, No. 116.
5. *Ibid.*, No. 112.
6. *Ibid.*, No. 904.
7. *Ibid.*, No. 1385.
8. *Ibid.*, No. 1346.
9. *Ibid.*, Nos. 37, 47, 69, 74, 76, 83, 959.
10. *Ibid.*, Nos. 78, 102.
11. *Ibid.*, No. 78.
12. *Ibid.*, No. 110.

or *Arahat* and that too in a context which leaves little doubt that a Jaina *tirthankara* is meant.

No. 96 refers to the worship of *Arahat*. Thus out of thirty-five occurences of the word *arahat* and *Arahamta*, five cases are directly invocations to *Arahat*, exactly as in Pala inscription ; and in another group of six cases also there is an invocation to *Arahat* in two instances (96, 110), the donation is for the workship of *Arahat* (Jaina *Tirthankara*) ; in two cases (37, 47) the word stands for Jina.

Only in one case (959), the inscription is said to be in a Buddhist cave at Rajgir. But the actual record refers only to the worship of the images of the *Arhat*.

Thus though the word *arahat* means both a *Jaina* and Buddhist monk, still in an overwhelming majority of cases, the word stands for a Jaina *Tirthankara* in the first place, or failing that Jaina monks. Very rarely it refers to the Buddha or Buddhist monks or to the Buddhist in general. Moreover, *Arahat* suffixed or preceded by *Namo* could only occur in a Jaina record, devoted to the worship of *Jina*, and not to Buddha. For at this early period Buddhists did not worship the Buddha as a god, while the Jainas worshipped the *Jinas* or *Tirthankaras*. Hene it is much later that the Buddhists adopted this invocation or *mangalācharana*.

Taking all this evidence, positive and negative, viz. of the occurence of the expression *Namo Arahmta* or only *Arahamta* or *Arhata* in Jaina records from Mathura, Pabhosa, and Udayagiri, and the complete absence of this expression from the early caves of Western Maharashtra, we reach an inescapable conclusion that in the Pale cave we have the earliest Jaina record in Maharashtra, and possibly in the whole of India, if relying on its palaeographical features, we place the record early in the 2nd century, or late in the 1st century B. C.

The word *Kātuna*, *Indarakhita* and *Kāhi* need some comments. *Katuna or Katuna* is explained or interpreted by Professor M. A. Mehendale as an absolutive form for *Kritva* (having done or made). For such an usage we may cite from Aśoka's Calcutta-Bairat edict. A reference to the index in Lüder's List shows that though there are some twelve personal names with the *Inda* as the first part, this is the first time that it is found immediately suffixed by *rakhita*. This name shows, as pointed out by me[1] that the Bhadanta, before he became a Jaina *Bhikshu*, must have been a kshatriya and follower of the cult of Indra, which later became unpopular.

The name *Kahi* also appears for the first time and would stand for *Kāsi*. If so, this would be the earliest epigraphical occurrence of the name Kasi or if it is read as *sāhākāhisaha*, it will mean together with other devotees.

The text in Devanāgarī runs:

l. 1 नमो अरंहंतानं कातुन (˙)
l. 2 द भदंत इंदरखितेने लेन
l. 3 कारापित (˙) . पोढि च साहाकाहि
l. 4 सह

1. *BDCRI*, Vol, III (1942), pp. 340-91.

Dr (Mrs) Shobhana Gokhale has shown elsewhere that the letters of the inscription compare well on the one hand with some of the characters of Aśokan edicts, whereas they differ from the later ones found in Karla and other caves of Western India. And thus the record can be definitely placed at the end of the 2nd or the beginning of the 1st century B.C. A few years on this or that side do not really matter: What is really significant for our purpose is that a group of Jaina monks had established a home in the far off Maharashtra before the Christian era. Now this might be in the wake of Chandragupta Maurya, or the later Maurya kings some of whom—Daśaratha for instance are supposed to be Jaina or could it be, as we shall see below, after Kharavela defeated Śatakarni in coastal Andhra ?

More important is the fact that the inscription occurs in hitherto unknown range of hills, though in the same region where numerous caves, all Buddhists have been known for more than a century. Hence the occurrence of a Jaina inscription in a new range of hills suggests that the Jainas had sought to have a separate, probably parallel establishment, as the Buddhists. If so, these cannot be solitary caves. There must be few more, in the same range or in the vicinity. And these must be searched for.

Here, as a result of the pioneering explorations and excavations by Alexander Rea in 1889 and A. H. Longhurst in 1916-17,[1] an establishment which was largely shaped of the sandstone hill running from east to west a circular rock-cut temple containing a monolithic temple; a large rock-cut *vihara* or monastery, a revived brick *chaitya*, remains of a large pillared hall, a stone built *stupa*, a large group of revived *stupas* on the ridge beside incomplete excavations in the rock were exposed to view. An inscription was later found on the steps of the platform. It records in character of the 2nd century B. C. that "Sanddata" (a female) pupil who obeyed the orders of the (Buddhist) monk Suyajnanatha (made those) steps."

Then, probably in 1966, Dr R. Subrahmanyam and Dr N. Venkataramanayya found near the brick *stupa* four copies of one and the same inscription engraved on four limestone pillars, beautifully polished and decorated with double half-lotus medallions (pl. 14-17). These have now been edited by the former[2] and published by the Department of Archaeology, Andhra Pradesh. I owe to Dr N. Ramesan, the present Director of the Department, for a copy of this important publication. I am extremely thankful to him for promptly complying with my request.

The inscription in six lines[3] purports to register the grant of a *maṇḍapa* by one Chula Goma, the recorder of royal message or orders *Sirisa (m) desa lekhakasa*

1. *ARASM*, 1916-17, pp. 30-36, and earlier references therein.
2. Śubrahmanyam, R., *The Guntupally Brahmi inscription of Kharavela*:, Andhra Pradesh Govt. Epigraphical Series No.30, Hyderabad, 1968, pp. 1-6.
3. Text of the Inscription
   l. 1. महाराजस कलिगाधिपतिस
   l. 2. माहिसकाधिपतिस म—
   l. 3. हा मेखवाहनस
   l. 4. सिरि संदेस लेख—
   l. 5. कस चुल गोमस मंड
   l. 6. पो दानम्

of *Maharaja Kalingādhipati Mahāmekhavāhana Mahīsakādhipatisa.* Now we shall not go here into the great political significance of this record. Dr Subrahmanyam has rightly pointed out that the emperor Śatakarni, the Śatavahana emperor must be ruling up to the coastal Andhra Pradesh also, and here he must have fought Kharavela, the lord of Kalinga. Dr Subrahmanyam also further infers that 'the monastic establishment at Guntupalli may have to be assigned to the Jainas as reported by the excavators." In this connection the name of a teacher Suyajnanatha, mentioned in the first inscription found by Rea in the last century is very significant. The ending or suffix "natha" in the early period is always found associated with Jaina teachers. Hence the first monastic establishment at Guntapalli was probably Jaina and later enlarged and appropriated to their use by the Buddhists.

If with this clue, we examine the old evidence, now nearly 100 years old, we find that at Guntapalli there is a rock-cut circular cave. It has a vaulted roof, domed and ribbed like an umbrella in imitation of a wooden building. The facade having a *chaitya*-window having rafters in imitation of the wooden original. Inside there was a small monolithic *stupa*. Longhurst had compared this cave with the Lomasa Rishi and Sudama caves in the Barabar hills in Bihar. These have been attributed to Daśaratha, a grandson of Aśoka. Thus architecturally this Guntapalli circular cave can be dated to the 2nd-3rd century B. C. It could be Jaina or Buddhist.

Now in the eastern hill at Sanghārāma there is a two storeyed rock-cut cave with some archaic sculptures. Above the entrance to the *chaitya* is a small, cross-legged, contemplating Buddha, while a life-size nude Buddha stands on one side. Here "beyond there is a rectangular chamber with an inner shrine on the back wall of which is carved a seated Buddha with a cobrahead over it."

It is also said that some of the features of this *chaitya* are different from those of the usual apsidal ended one.

Now all these facts are extremely significant. Though without a first hand study of the site and in the absence of photographs of all these figures, it is difficult to be dogmatic and say that the whole complex was originally Jaina, and then converted to Buddhism or *vice versa*. There are definite indications that at one time and probably in the 2nd century B. C. the Jainas had an establishment here. The Buddha is never shown nude. The nude figure with a cobrahead must be either Supārśva or Pārśvanatha. Probably the *lanchhana* carved at the base, or somewhere would indicate which *Tirthankara* this figure represents.

The inscription in Saurashtra (pls. 18 and 19) was found in a cave known as Bawa Pyara at Junagadh in the last century and published by Bühler in *Archaeological Survey of Western India*, Vol. II, p. 140 in 1876. It was later re-edited by R. D. Banerji and V. S. Sukthankar in the *Epigraphia Indica*, Vol. XVI.

The record is carved on a stone slab 0.60 m long and 0.2 m thick. It has four lines; the three are very much defaced, but the names of Chastana, Mahaksatrapa, and the grandson of Kshatrapa Jayadaman can be read in lines 2-3. In these four line there is a reference to *Devasura, Naga, Yaksha, Rakshasa, and Kevalijnāna-Jaramarana.*

Amongt all these words, the words *Kevalijñana* is very significant. This is invariably used with a Jaina *Tirthankara* who has obtained the Absolute Knowledge, which the Buddhist call "*Nirvana*"and the Hindus "*Moksha*", or "*Brahma*".

These instances, though so few are sufficient to warrant a conclusion that like Buddhism, Jainism had also spread to Andhra, Maharashtra, and Gujarat (Kachha—Saurashtra) What is now necessary is to carry out a systematic search for more traces of Jainism in different parts of India.

COINS FROM NASIK EXCAVATIONS (1950-51)

I. An early Sātavāhana (Sātakarni ?) coin.

The coin (pl. 23 Register No. 860) was found in layer 2 at a depth of 2.6 m in the sub-section Ie of the trench on the eastern side of the mound, called Matichi Gadhi.

Metal : Copper; size : squarish, 0.065 cm; weight : 5·349 grammes (82½ grains).

Obverse : Elephant facing right (trunk cut off), above faint traces of Ujjain symbol, and perhaps some letters, now obliterated. In the enlargement the last three letters *Ka n (i)* may be read.

Reverse : Ujjain symbol on the left, part of railing on the right. Both these were enclosed in a square border, of which one complete side, and a part of the second have only come out. The remaining part of the right hand side is peeled off.

The coin may be identified as that of Satakarni I. Its symbols compare very favourably with those on the coin published by Rapson,[1] which he attributes to king Satakarni.

The exact locality from which it came was not known but it was assigned to Western India. From our coin we know that one of the localities in Western India, where it was current, was Nasik.

[Letters are indistinct even on the enlargement ; so the attribution of the coin to Satakarni I is problematical].

II. Two New Varieties of Uninscribed Cast Coins

Coin 1. This coin[2] (pls. 20-22 ; Register No. 199) was found in layer 4, sub square G, at 2.7 m depth in the main trench on the Matichi Gadhi at Nasik. From the associated black and red Megalithic type and NBP ware, this layer together with layer 5, is assigned to Period II. Microliths and painted pottery from the lowest black oil layer constitute Period I.

Copper : Round, oblong, (1.7 cm × 1.5 cm × 0.02 cm).

Weight. 4.786 grammes (nearly 74 grains)

Obverse. There are two semi-circular raised signs on the left-hand border, a symbol like the tree in railing in the top centre, below it an incomplete rectangle, and a vertical line to its right.

1. Rapson, *BMC*., p.·8, Pl. 1.7.
2. This and the subsequent coin were cleaned by Shri Waman, Archaeological Section, Prince of Wales Museum of Western India, Bombay, and I thank him for this help.

Reverse. Now blank ; but there might have been some symbol on the right hand side, which is slightly broken.

If what looks like a symbol does not contain any letters (e.g. the vertical stroke may be compared to the Aśokan *pa*) then the coin might be placed in the category of cast uninscribed coins That is it will belong to sometime in the 3rd-2nd century B.C. This date is tenable[1] on the evidence of pottery as well as stratigraphy, because the black and red ware of the megalithic fabric as well as the NBP are dated to between the 3rd and the 4th century B.C.

The grouping of symbols appears to be unique. Separately or in other combinations, parts of the large symbols described above figure in certain Tribal coins. For instance, in coins of Audumbara, Kuninda and Pañchala,[2] there is a vertical stroke with a loop at the bottom turning to the right and an empty rectangle, but there is no symbol on punch marked, cast uninscribed, tribal or other ancient Indian coins, where a symbol identical with the one on the Nasik coin seems to occur. On some Kausambi coins,[3] as kindly pointed out by Shri P. L. Gupta, occur a tree in railing, a thick wavy line, and joined semi-circles. And it is possible, as he suggests, that these and what looks like an open rectangle are faded truncated parts of letters.

The second coin (No. 189) also comes from the same layer. It was however found in a different sub-square B, at a depth of 2.9 m it too belongs to Period II.

Metal : Copper, Size : Round (though considerably broken) and thick ; Diam. 24 mm, thickness, 8 mm ; Weight : 9. 528 grammes (147 grains).

The coin is so much corroded that it is peeling off in layers, and has a few cracks. Hence it was given up as useless. But a careful examination on cleaning showed a *svastika* with curved arms, just above the centre, and to its left a symbol, the upper part of which resembles an open scissors. In the lower part of it, again there is a fork, but only the right arm slightly curves in, while the left seems to be straight, unless it be connected with a wavy, serpent-like form to its left. From the arms of the upper fork, a bud-like object seems to emerge. The symbol may also represent a human being.

This symbol, as kindly pointed out by Shri P. L. Gupta after carefully examining the coin and the photograph, may be like the one published by Mr. Allan,[4] viz. two semi-circles joined by a line, to the left of which we may also discern, a small taurine. But it should be pointed out that in this coin the arms of the central symbol are *angular* and not rounded as in a dumbell, or in the symbol illustrated by Mr. Allan.

1. Even early part of the 4th century is not totally ruled out, because Allan, before finally limiting the period of these coins between the 3rd-2nd century B.C., said that these coins were probably of the same period as Silver Punch-Marked Coins. Allan, *CAI*, p. lxxxiv.
2. *Ibid.*, pp. 127, 159-67, 193 and 308.
3. *Ibid.*, p. 150.
4. Allan, *op. cit.*, p. xxxiii, 7.

The reverse appears to be blank. In the absence of writing, this coin may also be placed in the category of cast uninscribed coins. The *Svastika* occurs but rarely on punch-marked coins,[1] but is a common feature of later ancient Indian coins. It also figures on some varieties of Andhra coins; where its arms are often straight and angular,[2] but not so rounded as in the present coin. Some of the Tribal coins do however exhibit variety.[3] this On the uninscribed cast coins also two of the arms of the *svastika* are rounded;[4] stylistically thus the from of the *Svastika* suggests an early date for the coin.

The other symbol, if it is correctly described, seems to be quite new—its upper part resembles the *sarpa-mithuna* symbol, but the lower is quite different. It does not occur on the tribal, uninscribed cast or even on punch-marked coins.

Apart from the fact that these coins present two new varieties of uninscribed cast coins, the fact that they come from the Deccan is also important. For, hitherto their distribution was believed to be confined mainly to Central India and Uttar Pradesh. The Nasik coins would extend it for the first time to include parts of north-Deccan.[5]

1. Durga Prasad, *JPASB*, XXX (1934), *Num. Suppl.*, pl. 2.
2. Rapson, *op. cit.*, pl. 1, 566, 9, 13, 15; pl. II, 26; pl. III, 47 ; pl. IV, 2 ; pl. VIII, 29-16, 227; also *JNSI*, XII, pl. VIII, and XIII, pl. VI, I, where *svastika* appears very prominently on certain coins from Kondapur.
3. Allan, *op. cit.*, p. 308, pl. XIX, 2, 19.
4. *Ibid.*, p. 308. pl. XIX, 2, 19,
5. *Ibid.*, p. 308. pl. XXVI.

COINS AND GLASS SEAL FROM MAHESHWAR EXCAVATIONS—1953.

I. A Silver Punch-marked Coin.

The coin[1] (Register MHSR II, No. 1036) discussed here was found in trench II, Sub-section A1, layer 15 at a depth of 11.4 m on the mound known as Mandalkho at Maheshwar on the right bank of the Narmada, Nimar District, Madhya Pradesh. Traditionally this mound is associated with the habitation of kings, historic and proto-historic. Our excavations were comparatively limited in their size, and we have no evidence either to confirm or contradict the tradition. It should, however, be noted that of all the sites dug by us at Maheshwar and Navda Toli, on the opposite bank, the Mandalkho site presented the greatest depth and amount of occupation debris. Secondly, the proto-historic relics, viz. painted pottery and microliths were completely absent. The debris of the early historic period lay directly upon a thick layer of black soil, which contained neolithic and proto-neolithic stone tools. The early historic period is documented successively (from bottom upwards) by a silver Punch-Marked coin (layer 15), a Copper Punch-Marked coin (layer 13), and cast uninscribed copper coins (Ujjain, Taxila types, etc.). With these are associated the NBP and the black-and-red megalithic-like pottery. After an interval of about 1.5 m thick layers, in which the megalithic pottery is totally absent, starts the second (later) phase of the early historic period. In this occurred beautiful polished red pottery (some definitely imported from the Roman World) and terracotta images of a mother and child. These, I understand, from Dr Subba Rao, were also found in the early Gupta layers at Kumrahar, Patna.

This relative stratigraphical position strikingly confirms the antiquity to which the silver punch-marked coins are believed to belong, particularly *vis-a-vis* their relation in time to the copper Punch-Marked and other coins. On the other hand stratigraphy also points to the fact that silver Punch-Marked coins are later than the proto-historic period.

Other special features of the coin can be better understood after the description of the coin which follows.

Metal :—Silver. (before cleaning it appeared as if the coin was a mixture of copper and silver or gilded with silver, as copper-like substance appeared on one side of the coin).

Size —Oblong (1.9 cm × 1.8 cm). Photo enlarged to twice the size.

Weight :—42 grains (2.72 grammes) after cleaning.

1. I should thank here Shri Waman of the Archaeological Section, Prince of Wales Museum of Western India, Bombay. for cleaning the coin very carefully and well.

Obverse: —There are five symbols.

1. The Sun. 2. *Shaḍarachakra.* 3. Hare on the Hill.. 4. bull facing right and 5. circle with a thick knob between two taurines.

Reverse :—Only one faintly punched sun-like symbol.

The symbols on the obverse correspond to .—

(i) Allan's[1] Class 6, Group III, variety d, having 3 coins in all, of this type.

(ii) Walsh's[2] Bhir Mound hoard, Class A7 having 14 coins in all (though on going through the list (Appendix XI), only the following 6 coins—Nos. 301, 499, 604, 6.0, 776 and 796 were found to have the symbols 1 a, 2, 3, 4, 24 a,[3]

(iii) Gupta's[4] New hoard from Taxila has 3 coins having these symbols, and symbols 1a, or $1aa_1$, 2a, 3a, 4, 24a, of his classification.

(iv) Bhattacharya's[5] Purnea hoard has 6 coins (Nos. 1556-61). These are put into Class III, Group V, Variety d, the symbols bearing the Nos. 1, 2a, 11, 36, 62. According to Bhattacharya it is symbol No. 5 of our coin which distinguishes this group from other varieties.

(v) The Machhuatoli[6] (Patna) hoard has probably only one coin (No.11) with these symbols.

(vi) Walsh's[7] U.P. hoard of 1916 contains one coin (No. 11). It bears symbols 1a, 2, 3, 4, 24 which are identical with those on the Maheshwar coin.

(vii) Chakravarti's[8] Bahal (E. Khandesh) hoard seems to have only one square coin put into Class I, sub-class 6 and having the symbols 1f. six-armed, 2. Sun, 3. Bull, 6. hare-on-the-hill and 18.

(viii) Durga Prasad's[9] List ; they fall into Class $29A_{12}$ having two coins only—one from Rawalpindi and the other from Ahraura (District Mirzapur, U.P.).

(ix) Puri's[10] Rairh hoards ; only the hoard of 1938 has one coin of this type.

It would appear from the above comparisons that the Maheshwar type punch-marked coin occurs but in small numbers, though in the earlier Taxila hoard the total

1. Allan, *CAI*, p. 70; and Introductions, 18.2, 19.6, 21.11, 25.5, 32.18.
2. Walsh, *JRAS*, 1937, p. 616 and MASI, 59, p. 28.
3. Walsh, 59, does not cite any coin with symbol No. 24a., so this seems to be a mistake for No. 24.
4. Gupta, P. L., *JNSI*, XIII, p. 55; also *JNSI*., XI, pl. VII-IX.
5. Bhattacharya, *A hoard of Silver Punch-marked coins from Purnea*, MASI, 62, (1940), 62, p. 80.
6. Walsh, *JBBORS*, XXV, pl. 1, p. 100. Neither the weight nor the illustration of this coin are given.
7. Walsh, *JNSI*, 1941, p. 4. Neither the size nor the illustration of the coin are given.
8. Chakravarti, *JBBRAS*, XX, 1944, pp.83-87. Coin not illustrated or described in detail.
9. *JPASB*, XXX, 1934. Num. Supplement, pl. 15, No. 64.
10. Puri, K.N., *Excavations at Rairh*, pl. XXXIII.

number of coins having the Hare-on the Hill symbol is 485 and formed the largest class; secondly, it was found hitherto in hoards or in stray surface collections only ; thirdly it was not found hitherto at Maheshwar or at any site in Central India.[1]

Regarding the coin itself two things may be noted. The first is about the fabric. This is kindly brought to my notice by Shri P.L. Gupta. He had observed that the coins were made sometimes of thin silver sheets welded together, most likely by putting one sheet over the other and pressing both very hard when red hot. In this coin the edge is split at one end (because the coin fell in charcoal while cleaning). Thus it seems to confirm Shri Gupta's observation.

The second thing is about the symbols The interpretation of these is not yet satisfactorily done. So far very few stratified silver punch-marked coins have been found, and hence it is difficult to suggest which really is the locality mark on these coins. But if more such coins are found from the Maheshwar region, then something may be said about the provenance of these coins.

II. A Copper Punch-Marked Coin

This coin (Register MHSR. II, No. 1006,) was found in Trench II, sub-section A1, layer 13, at a depth of 10 m on the mound known as Mandalkho at Maheshwar. Like the silver punch-marked coin and the glass tablet (described below) it is assigned to the early historic Period II, Period at Maheswar.

The coin is rectangular and comparatively small. It is described below :

Metal : Copper. Size : 1.4×1.0×.3 mm (with its shorter sides bevelled, and slightly cut at one corner) ; weight : 2.666 grams (nearly 41 grains).

Obverse : There seem to be five symbols, of which the following three are certain :—

(i) The Sun (left centre).

(ii) *Shaḍārachakra* (right bottom). Two concentric circles with a crescent (part of the taurine clearly visible).

(iii) Crescent-on hill (top left).

(iv) Of the remaining two, the symbol on the top right, if the coin is held horizontally, seems to be a bull with the hump and crescent-like horns, facing right. If this reading is correct, then it would be a new feature in copper punch-marked coins which was not known hitherto.

(v) The last, fifth (bottom left) shows a circle or round object within a square or rectangle having two borders.

Reverse : Three symbols are faintly punched. Of these one is the Sun, the second a lotus. The third is not clear.

1. The hoards from Bairat (*JNSI*, VIII, pp. 24-29), and from Kosam, (*JNSI*, XII, pp. 75-83) do not seem to contain this type of coin.

Hitherto a few copper punch-marked coins are known and published. Mr. Allan illustrates a few from the British Museum Collection from southern U.P., while brief references are made by Bhandarkar,[1] Garde,[2] Gupta,[3] Altekar,[4] and Diskalkar[5] to the coins found from excavations or otherwise at Besnagar, Ujjain, Taxila, Pataliputra and Kasrawad respectively. So a detailed comparison with the known types is not possible at this stage.

At least three of its symbols are identical with those on the silver and copper punch-marked coins. What is here described as *shaḍarachakra* with two large concentric circles may be the symbol No. 6 of Allan.[6] The object which looks like a bull may be a bird, or a peacock, which appears on the small, rectangular copper punch-marked coins from Kasrawad.[7]

From the point of view of size and weight the Maheshwar coin seems to fall into a separate group. The coins published by Allan as well as some from Besnagar are of a much more heavier weight. Those from Kasrawad weigh around 3.3 grams. However, there are some from Besnagar belonging to Bhandarkar's Class I (particularly Pl. LXIV-15, 16, 17, 19) which weigh between 1.65 and 2.6 grams. These then might form a group with the Maheshwar coin, which was current in Central India.

III A Seal Impression on a Glass Tablet.

The seal impression, (Register No. 1049, MHSR. II) described here, was found in trench II on the Mandalkho Mound in layer 13, sub-section A, at a depth of 9.9 m. It is thus slightly later than the silver punch-marked coin discussed previously. Still it belongs to the early phase of Period II at Maheshwar.

The tablet is nearly square (24 mm and 10 mm thick) and of black glass, which shows several thin white bands on all the four sides and the underside, but none on the upperside, which contains the impressions. Two of the corners are slightly broken on the upper side, so that the paw of the elephant and the lower part of object in front of him are slightly affected. There is a small crack across the hind part of the elephant, but this is not serious.

The impressions are : an elephant marching to right with his trunk fully raised up and the mouth wide open, as if in the act of eating.[8] Below his face a vertical object like an inverted triangle with two lines on the right resting on a horizontal line standing on a perpendicular one. Above, over the elephant's body, a *svastika* with curved arms and a symbol formed by taurines. The impression was made while the tablet was still hot and in a semi-molten state, so that it has left slightly raised borders on two sides. The reverse is blank.

1. *ASIAR*, 1913-14 p. 210.
2. *Report, Arch. Deptt.*, Gwalior, 1938-39.
3. *JNSI*, XIII, p. 65.
4. *JNSI*, XIII, p. 144.
5. *JNSI*, VIII, pp. 99-106.
6. Allan, *op. cit.*, Index V, p, 303.
7. *JNSI*, VIII, p, 99-105.
8. An identical pose is illustrated by an elephant ready for eating, cf. *The National Geographic Magazine*, June, 1953, p. 784. But probably an elephant has to open its mouth, whenever it raises his trunk.

Since there is no writing, it is tempting to think that the impressions are made with a punch-marked or cast copper coin (Uninscribed and Inscribed) as these often bear the elephant, *svastika* and taurine symbols. But this possibility seems to be ruled out, because no punch-marked coin has only three symbols, while none of the cast coins so far published exhibit the symbols exactly in this way. This is particularly true of the representation of the animal.

In the silver punch-marked coins, the elephant's trunk is either half-raised up or it hangs down vertically.[1]

Many varieties of the Cast Uninscribed Coins published by Allan[2] are square and have on the obverse an elephant either facing the left or the right and taurine, *svastika* with curved arms and the inverted triangle with two horizontal strokes to its right resting on a bar.[3] Unfortunately the elephant types in these are not shown separately, while their photographs are not clear, as the coins seem to be bad. However, in none of the latter the elephant is represented as in the glass tablet. It is possible that some hitherto unknown variety of this coin type was used.

From among the rest, some of the Tribal coins—such as Audumbara,[4] Eran,[5] Kāḍa,[6] Mathura.[7] Taxila,[8] Ujjaini,[9] Yaudheya[10] and Andhra (Śatavahana) coins have the elephant motif generally on the obverse. But in none the elephant is so well-depicted, with its trunk fully raised, facing either right or left. The only near approach is in the so-called Taxila coins. These are either square or rectangular, and have on the reverse an elephant or a lion, and a symbol above and in front of these animals. In one coin[11] there seem to be two symbols above the elephant, very nearly like those on the glass seal. The representation of the elephant, however, is different.

From amongst the Andhra coins the only comparable types are the elephant motifs on the coins of Siri Satakarni, and Yajña Satakarni of the Tarhala hoard published by Mirashi.[12] In these the trunks of the elephants are fully raised up, as in the glass tablet. But these are round and inscribed, and thus not likely to be the proto-types of the glass tablet.[13]

1. Allan, *op. cit.*, Index, p. 298, and Durga Prasad, *op. cit.*, pls. 23 and 26.
2. Allan, *op, cit.*, pp. 86-92.
3. In some rare square coins of the Śakas and the Parthians from Taxila (Marshall, *Taxila*, II, p. 806-07, and III, pl. 239, Nos. 125 and 131.) elephants are depicted with their trunks upraised and holding a wreath. But even in these the trunks are not raised so vartically as in the glass tablet. Cf. also a coin of Maues with elephant, *JNSI*, XIV, p. 47, pl. 1, 7.
4. Allan, *op. cit.* pl. XIV.
5. *Ibid.*, pl. XC.
6. *Ibid.*, pl. XX, 18.
7. *Ibid.*, pl. XXIV, 16.
8. *Ibid.*, pl. XXXI-XII.
9. *Ibid.*, pl. XXXVI, 6, 7, 8.
10. *Ibid.*, pl. XXXIX, 11, 12, 13.
11. *Ibid.*, pl. XXXIII, 4.
12. Mirashi, *JNSI*, II, pl. VIII, nos. 4 and 19 respectively.
13. Elephants are often respresented on early Indian sculpture, but in none is it shown as in this tablet. The manner of representing the trunk seems to be unique in the whole range of early Indian archaeology.

Under these circumstances, it may be said that the impressions on the glass tablet are probably from a seal (or an amulet) or an Uninscribed cast square copper coin, which is hitherto unknown.

The layer from which the glass tablet was found also yielded a copper punch-marked coin, while slightly later layers (Nos. 10-8) yielded copper uninscribed coins. So there is no difficulty in regarding the tablet as contemporary with the copper uninscribed coins.

And there is another important feature of this glass tablet. So far very few pre-Maurya or even Maurya glass objects have come to light. Only two are on record. The first is a glass seal from Dr. Spooner's excavations at Patna. It was noticed for the first time by Walsh who described it as "a small square-shaped piece of light green opaque glass, or other vitreous material about the same size as a small square punch-marked coin, on one side of which this mark (viz the *Shadārachakra*) is very clearly moulded, exactly similar to this mark on those coins."[1]

This 'seal' has not been noted by Spooner, nor even seems to have been published. Since it was found in the infillings of the wooden palisades, it is believed to be (and may be indeed) pre-Mauryan. If so, it once again indicates the practice of stamping coins or similar objects on glass which might have made its appearance at about this period ; hence rare and a piece of curiosity.

The second record is of the discovery of a glass ear-reel, and part of a miniature casket from the fourth stratum on the Bhir mound at Taxila. This is approximately assigned to the 5th century B.C. Like the Maheshwar tablet, both these were made of a fine variety of black or very dark green glass, which has the appearance of obsidian and is remarkably free from quartz grains or other impurities.[2]

Antiquity of the use of glass in India is also thus being confirmed by the Maheswar glass tablet which from its stratigraphical position and the associated coins, the NBP and the black and red megalithic-like pottery is at least of the 4th century B.C., if not earlier.

1. Walsh, E.H.C., *JBBORS*, V (1919), p. 33. 2. Marshall, John, *Taxila*, I (1951), p. 100.

ICONOGRAPHICAL ELEMENTS IN THE ĀDI PARVA

Indian iconographical studies have been hitherto based on the Vedas, the epics—*Mahābhārata*, *Ramayana*, *Puranas*, *Agamas* and later works on iconography, each source being drawn upon as it served to explain a certain image. In such studies no attempt was made either to trace the development of iconography theoretically from any one source or to trace its development objectively from the evidence of existing monuments in a particular region.

Bhattacharya remedied this defect with regard to Buddhist iconography, both in its theoretical as well as in its objective aspect to some extent. Under his guidance a similar attempt is being made to study the Jaina iconography.

With regard to Brahmanic iconography the recent studies of Jitendra Nath Banerjea are welcome, concentrated as they are on the hitherto neglected material, viz. coins and seals and aim to deal exhaustively with the iconographical development through these. So also are the studies of Coomaraswamy who has selected certain items from icons and sculptures and show their course through early Hindu and Buddhist literature as well as sculpture.

In all these studies the *Mahābhārata* is used as a source now and then, but there has been no attempt to explore it thoroughly in the manner contemplated here. Particularly this seems to be desirable now, when we have its critical text.

In the present study which covers the Adi Parva only, besides iconographical descriptions of gods and goddesses, their names are also given and discussed, for they are connotative; as also wherever necessary the circumstances under which a given name or certain description of a deity is mentioned. Further these iconographical features, names and incidents are compared with those occuring in early inscriptions, coins and sculptures. Such a study, it is expected, will throw light not only on the relative age, the iconographical development of a deity, but also on subjects like the antiquity of the cult of Gopala-Krishna and the relative age of the particular Mahabharata passage, contributing another cultural or higher text criticism.

The subject deals with the following aspects :

(1) Invocation to a deity at the beginning of an *adhyaya* or *parva*;

(2) Names of deities, together with the description of their :

(a) dress,

1. Banerjea, *J N. the Development of Hindu Iconography*, Calcutta University, Calcutta 1941.

(b) weapons,

(c) other emblems, and

(d) *vahana*, and

(3) The circumstances under which a certain deity's description occurs.

INVOCATION.

Excepting the invocatory verse at the beginning of the Adi Parva, where salutations are first offered to Nara, Narayana and Sarasvati, in the Adi Parva, whenever there is an invocation at the beginning of an *adhyaya* or *parva*, it is usually to Brahma and once to Guru Vyasa. No doubt a few, north Indian and Devanagari Mss. mention Ganesa even before this stanza, but these are regarded late and interpolated and rightly. For archaeologically considering both the architectural, sculptural and epigraphical evidence, not only the cult, but also ordinary reference to Ganesa is late.[1] So far as Gujarat-Kathiawar is concerned, it may be definitely said that Ganeśa's images and invocatory references[2] in inscriptions become common in or about the 10th century A.D. And as far as the writer's knowledge goes, the same may be said about inscriptions of northern India where as Getty has pointed out the earliest dated eprgraphical invocation to Ganeśa (Vinayaka) is in the Ghatiyāla (Jodhpur) inscription of A.D. 862[3] Perhaps in the South, Ganeśa became popular a century or two earlier than in the North. In the inscriptions of the Deccan-Konkan he is regularly mentioned from the Silahāra times (*c.* A.D. 900) onwards.[4]

In sculpture, faint traces of the early form of Ganeśa have been traced by Coomaraswamy in Amaravati Sculptures,[5] and recently by Paranavitane in a frieze of a newly excavated stupa in Ceylon, called Kantaka Cetinga, of about the 1st-2nd century A.D.,[6] but a full-fledged figure occurs only in the 5th century Gupta temple at Bhumara.

This, the definite occurrence of a Ganeśa image in a Gupta monument, may well explain the intrusion of Ganapati—Vyasa episode in the north Indian *Mahabharata* Mss. It is also in the north, as Getty has observed, that a personāl name--Ganapati-nāga-appears about the same time in the Allahabad Pillar inscription of Samudra Gupta.

If well-authenticated and dated literary evidence is examined, perhaps a similar conclusion will be drawn regarding the position of Ganeśa in literature.[7]

The same is not, however, the case with Śiva or Vishnu. Inscriptions from about

1. Ganapati is not even mentioned by Varahamihira in the list of sects flourishing in or before the 5th-6th century A.D., still Banerjea, *op. cit.*, p. 250, says, inspite of any numismatic, sculptural and epigraphic evidence, "that it is presumable that the worship of Gaṇapati-Viñāyaka was in vogue..... "
2. Banerji, *The Temple of Śiva at Bhumara*, MASI, Calcutta No. 16, 1924, pl. XIIa.
3. Getty, Aliace, *Gaṇeśa*, 1936, p. 30; and *Epi, Ind.*, IX, p. 279.
4. Information form A.V. Naik, who is working on this period in the History Department of Deccan College.
5. Burgess, *The Stupa at Amaravati.*
6. *Getty, op. cit.*, 25
7. Information from Patil. Gaṇeśa is not mentioned in the *Vāyu Purāna.*

the 5th century A.D., invoke either Brahma, Vishnu or Śiva. It is about this period that the images and the cult of these gods are very strongly evident. Looking however to the tenor of the entire Adi Parva, the one invocation to Śiva as Pinakin, relegated to the footnote by the editor, seems justified.

NAMES AND DESCRIPTION OF DEITIES.

Brahma : Among his epithets the following are most common :

Prajapati, Pitamaha or Sarvapitamaha, Parameshṭhi, Sthāṇu, Suraguru, Svayambhu.

No iconographical description occurs.

Siva : It is not at all surprising that among his epithets in the Adi Parva the epithet Śiva occurs but once and that too not without a variant reading, the others are :

(1) Bhaganetrahara, (2) Deveśa, (3) Devadeva, (4) Hara, (5) Iśāna ,(6) Iśvara, (7) Kiratarupa, (8) Mahadeva, (9) Nīlakaṇtha (?) (10) Pinākī or Pinākadhruk, (11) Sadāśiva, (12) Śankara, (13) Sthānu, (14) Sūlapani, (15) Tripurari, (16) Tryambaka, and (17) Umapati.

Some of these are common with those of the Rudras : Mrigavyādha, Śarva, Nirṛti, Aja-Ekapada, Ahirbudhnya, Pinaki, Dahana, Iśvara, Kapalī, Sthāṇu, Bhava. All these may be regarded as names of Śiva. Whereas all these names are significant, epithets No. (1) Bhaganetrahara, (7) Kiratarupa or (Vāpu), (9) Nīlakaṇtha, (10) Pinakī, (13) Sthānu, (15) Tripurari, (16) Tryambaka, and (17) Umapati imply the respective episodes which gave this name to Śiva, though in the Adi Parva only the episodes implied in Nos. 7 and 15 are slightly referred to.

No clear idea of Śiva's anthromorphic form is given anywhere. But the story of Tilottama tells us how one of the forms of Śiva—Sthānu, or Mahādeva—came to be four-faced. It was while trying to behold this fair *apsara* from all quarters that the four faces were created. Forms like Kirata, Śamkara, Umapati, Pinaki imply a human form, but no idea can be had of the number of arms.

Most probably the number of arms were only two. And the weapons associated with Śiva are *Śūla* (Śulapani), *triśula*. (the bow), *Pināka*, (Pināki, Pinakadhrik, *krtī* (mahādevakrityam), and the *astras*, among which the pāśupata seems to be the chief, called Mahāstra.[1]

Early epigraphical evidence tends to give much the same conclusion. And perhaps a number of other epithets of Śiva, implying such episodes as the *Tandava-nritya* will be found to be late. Patil's studies in inscriptions of the Gupta period (c. A.D. 320-500) reveal that Śiva as Bhairava was known, so also his epithets Hara, Īsa, Mahādeva,

1. Patil. "Cupta Inscriptions and the Purāṇic Tradition," *BDCRI*, II, pp. 148.ff

Maheśvara, Paśupati, Śambhu, Śiva (mentioned with his *linga*), whereas the writer's studies of early inscriptions of the Deccan (*c.* 100 B.C.—A.D. 300)[1] show that in this period the only epithets of Śiva current were with the prefixes Śiva and *Śula* and Skanda. Even the epithet Śambhu is absent.

These iconographical features of Śiva differ in one important respect from those of Vedic Rudra. In the Rig Veda Rudra carries a thunderbolt, *vidyut*, a bow and arrows: according to the later Vedic texts a bow, arrows, and a bolt or a club[2]. There is no reference to the *śūla* or *triśūla*.

This weapon, however is, almost always associated with Śiva in early Indian coins. Besides the probable *lingam*-like symbol on an early indigenous coin, the *triśula* is found on the coins of the Pānchāla king Rudragupta, other early coins, and on the coin of Wema Kadphises.[3]

Similarly the earliest representations of Śiva's anthropomorphic form on the coins from Ujjain and its vicinity,[4] on the coins of foreign rulers Gondophares,[5] Maues, and the Kushan kings Wema Kadphises[6] and Vāsudeva[7] are usually two-armed and one-faced. But on certain Ujjain coins,[8] as well as the coins of the Kushan kings Kanishka and Huvishka poly-armed and poly-headed Śiva begins to appear. When so armed the figure carries a number of other objects such as *vajra, pāśa, kamaṇḍalu, chakra*—emblems which were reserved for other gods in an earlier period.

From the comparison of Śiva's iconographical features with the Vedic and the early numismatic it would seem that his Mahābhāratic features would place him somewhere between the two periods.

The rarity of the epithet Śiva in the Adi Parva cannot be explained at present. For though not applied specifically to Rudra in the Rig Veda, being applicable to other gods in the sense of 'auspicious', in the later period, early numismatic and epigraphical, as mentioned above, it was of common occurrence as an epithet and as the first part of a personal name.

In the *Vayu Purana*, according to the details kindly supplied by Patil, among the epithets of Brahma the following are found: Chaturmukha, Sahasramurdhā, Kamalagarbhabhah, Puṇḍarīkāksha, Hiṛnyagarbha, Adideva, Prajapati, Īśvara, Mahādeva, Bhūta, Vibhu, Yajña, Kavi, Kapila, Agni, Svayambhū. He is also called Narayana, but this epithet has nothing to do with Vishnu. Purusha, Svayambhu, Hiṛnyagarbha and Parameshṭhī are common epithets, but Pitamaha is not.

Śiva is often called Bhutapti, Pinakapani, Kapardin, Kapalahasta, Jatin, Dandin, Digvastra, Pāśahasta, Gananam-pati, besides Maheśvara, Śarva, Bhava, Paśupati, Rudra.

1. Sankalia, "Cultural Significance of Personal Names in Early Inscriptions of the Deccan," *BDCRI*, III, pp. 351 ff.
2. Macdonell, A. A. *Vedic Mythology*, p. 74.
3. Banerjea, *op. cit.*, pp. 127-29.
4. *Ibid.*, p. 130.
5. *Ibid.*, p. 132.
6. *Ibid.*, p. 135.
7. *Ibid.*, p. 140.
8. *Ibid.*, p. 130.

The epithet Trilochana occurs but it is not very common and the story does not occur. His other epithets are : Guhavasi, Mahāyogi, Khechara, Rajanichara and Goghna.

The epithets of both Brahma and Śiva are more varied than those found in the Adi Parva. If they are found in all the manuscripts of the *Purana*, then it will be possible to infer a later and fuller development of the iconographical features of Śiva and also a later composition of the *Vayu*.

VISHNU : Vishnu has the following epithets :

(1) Amitraghna,[1] (2) Ananta,[2] (3) Chakrayudha,[3] (4) Damodara,[4] (5) Govinda,[5] (6) Hari,[6] (7) Hrishikeśa,[7] (8) Janardana,[8] (9) Keśava,[9] (10) Krishna,[10] (11) Madhusūdana,[11] (12) Mohinī,[12] (13) Mādhava,[13] (14) Narayana,[14] (15) Purushottama,[15] (16) Vāsudeva,[16] (17) Vaikuṇṭha,[17] and (18) Yogeśvara.[18]

Of these of frequent occurrence besides Vishnu are the epithets Narayana, Vāsudeva, and Krishna; less frequent Keśava and Janardana, whereas Damodara, Govinda, Mohinī, Vaikuṇṭha, Yogeśvara are mentioned only once.

Vishnu thus appears to be identified with Narayana, and Krishna, son of Vasudeva and Devakī. However, there are certain epithets, which always come in a group or a particular context. Thus Nara and Narayana, Keśava and Rama (Balabhadra), Narayana and Lakshmī, Krishna, with Vasudeva, Dāśārha, Purushottama, Keśava.

Vishnu is identified with Purusha, Brahma, Rita, Iśāna and others,[19] while there is a reference—implied—to the *Virat-svarūpa* of *Krishna*.[20]

From purely iconographical point of view we find two "strata", each giving similar details, but important for tracing the development of later Vaishnavite iconography. In the first "stratum", Narayana is said to be wearing *Kaustubha* jewel on his breast,[21] or bearing the Sudarśana *chakra*,[22] (while Nara had a *divya dhanus*). His full-fledged description is once given, when he was approached by all the gods, after being advised by Brahma to take birth in this world Here, as in later inconographical texts, he is described as " *Chakragadāpānih pītavāsāsitaprabhah padmanabhah...*[23] "wielding a *chakra* and *gadā*, and dressed in a yellow garment." Narayana got the Garuda as his *vahana*,

1. *Mahābharata*, 1.58.49-51.
2. *Ibid.*, 1.16.14.
3. *Ibid.*, 1.16.6.
4. *Ibid.*, 1.180.17.
5. *Ibid.*, 1.191.19 ; 212.30.
6. *Ibid.*, 1.1.22.
7. *Ibid.*,
8. *Ibid.*, 1 197.20 ; 212.21.
9. *Ibid.*, 1.2.222 ; 189.31 ; 199.50.
10. *Ibid.*, 1.50.15 ; 216.25 ; 189.31 ; 2.147 ; 1 124 ; 2.93 : 1.66.
11. *Ibid.*, 1.191.18 ; 210.3,
12. *Ibid.*, 1.16.39.
13. *Ibid.*, 1.210.4 ; 213.20.
14. *Ibid.*, 1. p. 3 ; 15.11 ; 16.14 and 35 ; 219.15 ; 1.117 : 17.10-20.
15. *Ibid* , 1.90.91 : 58.49-51 : 199.7.
16. *Ibid.*, 1.1.193 ; 219.15 ; 199.6 ; 1.118-9.
17. *Ibid.*, 1.58.49-51.
18. *Ibid.*, 1.2.147.
19. *Ibid.*, 1.1.20-21.
20. *Ibid.*, 1.1.124.
21. *Ibid.*, 1.16.35.
22. *Ibid.*, 1.17.19-20.
23. *Ibid.*, 1.58.49-51.

and as an emblem on his *Dhvaja*,[1] in exchange for the boon of immortality which he gave to Garuḍa.

Identical are Krishna's weapons and emblems in the Mahābhārata times. As Vasudeva he obtained the *chakra*, (which had the power to come back as a boomerang), called now Vajranabha, from Agni,[2] and the Kaumodaki Gada from Varuna.[3]

What is important to observe is that both Narayana and Krishna Vasudeva are endowed with two weapons only, implying the possession of two arms or hands. And this is so even in the eleventh *adhyāya* of the Gita, where Vishnu-Krishna at Arjuna's request assumes once again his normal form. In this *mānusha rupa* (human form), Krishna wore a *kiriṭa*, and though *chaturbhuja* (four-armed) carried only the *gada* and *chakra*.[4] No doubt the *śankha* is mentioned along with the *gada* and *chakra* when Krishna goes to Hastināpura,[5] or in the *Gita*, but it appears that these weapons and the *śankha* were never held together at one time as in later iconographical texts.

Few coins or seals of the early Christian or pre-Christian era bear the figure of Vishnu. But coins have been found with the symbol of a *chakra* or wheel; of such representations an "elaborate" or a double wheel and lotus symbol appearing on the reverse of a unique coin of the Vrishni Rājanyagana is regarded by Banerjea[6] as the representation of the Sudarśana-*chakra* of Vishnu-Krishna. The *chakra*, though not associated with Vishnu in Vedic mythology then, may be the earlist Vaishnavite symbol; Garuda and the *gada* coming next; and still later such symbols as *padma*, *śankha* and others which are found in figures from the 5th century onwards.

Among the epithets signifying the various exploits of Vishnu, two—Govinda and Damodara—are important, regarding the connection of Gokula or Bala-Krishna and the Dvaraka or Mahā (bhārata) Krishna. The reading Damodara seems to be uniformly used by all manuscripts for no variant reading is mentioned. It is applied to Krishna when he and Balarāma attend the Draupadī's *svayamvara*, and see the Pāṇḍavas (as brahmanas) take away Draupadi in the face of opposition by kshatriyas.[7]

The occurrence of the epithet Govinda also stands unchallenged but the first part of the 2nd line is doubtful,[8] whereas in the second case, there is also a reading 'Mādhava'.[9]

If both these epithets, about which the text is fairly correct and unanimous, really go back to the first or early period (about 300 B.C.) of the composition of the present *Mahābhārata*, then it may be said with some justification that by this time Vishnu was being identified both with the Dvārākā and Gokula Krishna. While considering

1. *Ibid.*, 1.29.16.
2. *Ibid.*, 1.216.44.
3. *Ibid.*, 1.216.25.
4. Belvalkar (ed.), *Bhagavad Gītā*, 1941, adhyāya 11, śloka 46.
5. *Mahābhārata*, Udyoga Parva; and Bhagavad-yāna parva, 5.81.12.
6. Banerjee, *op. cit.*, p. 145.
7. *Mahābhāratā*, 1.180.17.
8. *Ibid.*, 1.191,19.
9. *Ibid.i* 1.212.30.

the epigraphical references it may be said that the reading 'Govinda' may not be later than the 5th century A. D., for, by this time it was already current,[1] whereas as Dr. Katre pointed out to the writer, it was regarded as a *samjñā-vāchak* (personal name) by the *Vārttika* on Pānini. Similar acquaintance with the early life of Krishna's brother Balarama is indicated by the latter's epithets "Vanamāla", "Nīlavāsa".[2] It is in these words that the *Bhāgavata*, an admittedly later Purana than the Mahābhārata describes him, while Balarama visits Gokula Vrindavana again. His other epithets are Rama,[3] and Haladhara[4] or Halayudha.[5] The earliest epigraphical mention of the epithet Rama along with Keśava is in the Nasik inscription of Vāsiṭhiputa Siri-Pulumāyi.

Paraśurama is mentioned once as Rama, called "a wielder of weapons" (*Śastrabhrit*) and placed between the *Treta* and *Dvapara yugas*.[6]

Twice there is a reference to Rama Dāśarathi, in which he is described as a great sacrificer along with other former kings ; and a speaker of truth respectively.[7] This delineation of Rama as a former great king is more in keeping with his character hinted at by early inscriptions,[8] than with later puranic accounts which bestow divinity on him.

Sūrya has such epithets as Aditya, Arkaja, Bhāskara, Vibhāvasu.[9] Neither in the Critical Edition nor in the expurgated passages is his full anthropomorphic form described. But Adityas are associated with *kuṇdalas*[10] (a round ear-ornament). Karna is born with a *sahaja* (natural) *kavacha* and *kuṇdalas*;[11] whereas in a passage from D_4 (a mixed Devanāgari Manuscript from Tanjore)[12] Sūrya tells Kunti that she will have a son bearing Āditya *kuṇdalas* (*aditya kundala*) and his impregnable *kavacha*. It is, therefore, reasonable to assume that Sūrya in his anthropomorphic form was represented with *kuṇḍalas* and a *kavacha*.

Early sculptural evidence may be here noted. Among the north Indian representations, perhaps the earliest figure so far known is from Mathura. it wears a *kavacha*[13] and long *kuṇḍalas*.

It is interesting to observe that the Mahābhārata Śurya does not wear high boots, which he does even in the earliest sculptural representation.

1. Patil, *op. cit.*, 153.
2. *Mahābhāratā*, 1.212.20.
3. *Ibid.*, 1.2.222; 199.50.
4. *Ibid.*, 1.211.7.
5. *Ibid.*, 1.211.7. (Ms. D_6.).
6. *Ibid.*, 1.2.3.
7. *Ibid.*, 1.1.168 ; 197.6.
8. Cf. Nasik Inscription of Vāṣiṭhiputa Siri-Pulumāyi. *Epi. Ind.*, VIII, 60 and Patil, *op. cit.*, appendix, p. 44.
9. *Mahābhārata*, 1.1.39-40 mention sons of Vivasvān such as Divasputra, Bhānu.....Ravi —all of which were later regarded as epithets of Sūrya.
10. *Ibid.*, 1.3.140.
11. *Ibid.*, 1.104.11.
12. *Ibid.*, Appendix 1.59.5. p. 908.
13. Cf. Coomaraswamy, *History of Indian and Indonesian*, Art, Fig. 103 ; also Sankalia, *Archaeology of Gujarat*, p. 163 where all the evidence on Sūrya is discussed.

Indra and other Vedic gods also appear in the Adi Parva. But throughout, Indra plays a prominent part, till being worsted first by Garuda and then Krishna and Arjuna at the time of the *Khāṇḍava-dāha*. Among his epithets—(1) Aditya,[1] (2) Balasudana[2] Devadevesa,[3] (4) Harivahana,[4] (5) Sahasrāksha,[5] (6) Śakra,[6] (7) Vajrapani,[7] (8) Vajradhara,[8] the last is common. Each of these has some cultural and iconographical element. The first-Aditya connects Indra with the Sun and Vishnu. The second and the third hint at Indra's pre-Mahābhārata role. The fourth refers to the horse—*vahana*—of Indra,[9] namely a bay-horse. Indra became Sahāsrāksha (1000-eyed) while trying to see the *apsara* Tilottamā. He was called Vajradhara, because he weilded the Vajra.

Though Indra is credited with other weapons—*vāyavya astras* and *śastras*—which he gave to Arjuna in the classical or historical iconography—Brahmanic, Jaina and Buddhist, he occupies a subservient role, ministering either to Śiva or Vishnu, or a Jaina *Tirthankara*, or the Buddha. And his two characteristic emblems or marks are his *vajra* and the horse or the elephant. Perhaps the earliest figure of Indra is a Jaina sculpture from the Kanakali tilā (mound) at Mathura, where he appears seated in *lalitasana*, with two hands, one holding the *vajra* (?)[10] and the other peeled off.

In Budhism he appears first in the representations of Budha's life and then his personality was perhaps merged into that of Vajrapani.

Figures of Indra on early indigenous coins (bearing the name Indramitra) are not very distinct and hence not useful for iconographical studies. But his theriomorphic and anthropomorphic representations on the coins of Indo-Greek and Scythians in which a conical object—mountain Śvetavata(?)—his mount, the elephant, his weapons—*vajra*, and a long sceptre—as well as a human figure seated and some or all, of the above features not only tally partially as Banerjea[11] has observed with the description of Indra's icon as given in the *Brihatsahmita* but also with that given in the *Mahābhārata*.

Perhaps his earliest (*c.* A.D. 400.) representation in Brahmanic iconography is on a niche or a *chaitya*-window medallion of the Gupta Śiva temple at Bhumara in Nagod State, Central India. But here he is shown holding a sword (?) with two hands.[12] So it is not certain whether the figure is of Indra. In the subsequent period even this position he loses, and is rarely prominently represented.

Vedic and other gods are mentioned only once—that too when the turn up to assist Indra in his fight against Krishna and Arjuna who Allow Agni to burn the Khandavavana. In this battle Indra wields the Aśani, (perhaps the same as the *Vaira* (?),) Yama *kaladana*, Dhaneśvara, *śibika*, Varuna, *pāśa*, Śiva (who is mentioned for the first time

1. *Mahābhārata*, 1.1.21.6.
2. *Ibid.*, 1.203.25.6 ; 1.218.13
3. *Ibid.*, 1.21.6 ; 1.218.13,
4. *Ibid.*, 1.22.1.
5. *Ibid.*, 1.21.6 and 1.203.25,6
6. *Ibid.*, 1.218.28.
7. *Ibid.*, 1.26.28 ;50.12 ; 158.49.
8. *Ibid.*, 1.150.16.
9. His mount was also an elephant. *Ibid.*, 1.218. 28.
10. Smith, the *Jaina Stupa*, ASI (NIS), XX pl. XCVIII.
11. Banerila, *op. cit.*, p. 164.
12. Banerjee, *op. cit.*, pl. XIV c.

under this name)[1] *vichakra*,[2] Aśvinas, *oshadī*, Dhata *dhanu*, Tvashṭā, *parvata*, Jaya, *musala*, Mrityu *parāsvadha*, Aryamā *parigha*, Mitra *Kshura-paryanta chakra* (a wheel sharp around), Pūsha, Bhaga, Savitā *Kārmuka*, Rudras, Vasavas, Marutas, Viśvedeva and other gods also joined the battle.[3]

On comparing the features of these gods with their Vedic features we find slight but important deviations. Aryaman, Bhaga, Mitra and Savitri are not endowed with any weapon in the Vedic period,[4] while in the *Mahābhārata* they carry *parigha*, *kārmuka*, *chakra* and a *kārmuka* respectively. Pūshan in the *Rig Veda* wields a golden spear, and an awl or a goad;[5] here a *kārmuka*. It is said to be characteristic of Tvashṭā in that Veda to hold an iron-axe in his hand ;[6] now he seizes a *paravta* (mountain). Yama does not seem to have been given any weapon in the *Rig Veda*. However he appears to be identified with death (*mrityu*).[7] In this passage of the *Mahābhārata* Yama and Mrityu have a distinct personality ; the former carries *kāladaṇḍa*, and the latter *paraśvadham*. These are evidently later features of these gods, nearer to Puranic times.

Varuna wielded his old Vedic weapon the *pāśa*. Who Jaya is, is not clear. Probably he might be one of the door-keeper gods of Vishnu. The *Śibika*[8] of Dhaneśvara or Kubera, if understood in its ordinary meaning as a palanquin, could hardly be a weapon of offence or defence.

The Aśvins took up the shining (*dipyamāna*), *oshadhī* (medicinal herbs) to fight with (?) or to heal the maimed and the injured as they are credited to have done since Rig-Vedic times.[9]

Dhanvantari, the physician-god who is sometimes depicted in later iconography is mentioned once. He was the last to come out of the *samudramanthana*, carrying *amrita* in a white (*śveta*) *kamaṇḍalu*.[10]

In the same connection is mentioned Śrī, also once ; Lakshmī along with Nara. The only thing that we learn about her form is that she was dressed in a white (*pāṇḍura*) garment. There is no reference to the lotus flower which she is often shown to hold or stand on or both or to the bathing elephants. Her iconographic representations in Gaja-Lakshmi or simply standing or sitting and holding a lotus are common on early Indian tribal and other indigenous coins from about the second century B C.,[11] and also on sculptures from Sanchi and elsewhere. If, therefore, the entire *Mahābhārata* gives a similar evidence, it might be regarded as pointing to the pre-iconographic stage of development of Lakshmī or Śri.[12]

1. According to G_1 Sadāśiva.
2. According to other Manuscripts *triśula*, *Śula*, *pinaka*. See *Mahābhārata* 1.218.31.
3. *Ibid* , 1.218.27.37.
4. Cf. Macdonel A. A., *Vedic Mythology*, 1897, pp. 45, 29, 32 respectively.
5. *Ibid.*, p. 35.
6. *Ibid.*, p. 116.
7. *Ibid.*, p. 172.
8. *Ibid.*, 26.
9. *Ibid.*, p. 5.
10. *Mahābhārata* 1.16.37.
11. See Benerjea *op. cit.*, 122-24, and Coomaraswamy, "The Early Indian Iconography," *Eastern Art*, 1, p. 175 cited by Banerjea.
12. *Mahabhārata* 1. p. 3.

There are two references to Sarasvati. The first is an invocation to her, in the opening verse of the *parva*.[1] But here besides calling her a devī no details are given. The second reference runs thus "Krisdna(*Draupadī*) *babhūva paramaprītā nāgai riva sarasvatī*" A variant reading gives *Nāgair bhogavatī yathā*.[2] Accepting the reading adopted in the text as correct, what can we make out of it ? If the Nagas refer to elephants, then the idea implied in the sentence might be the bathing of Sarasvatī by the uplifted trunk of an elephant on either side of the goddess. But usually it is the goddess Śrī-Lakshmī who is so pictured in literature and in early coins and sculptures, So far no early figure of Sarasvati is found in this form. But the later north Indian Vishnu images do associate Sarasvati with Vishnu as one of his consorts,[3] the other being Śrī. Unless, however, a definite early Gaja-Sarasvatī form is found, the explanation here given may be regarded as doubtful. Under the circumstances the variant reading is worth a consideration.

The goddess Gangā is described in anthropomorphic form in the Śantanu-Gangā episode.[4] But this description is vague, and of no value in tracing her later iconographical features, where she is shown to stand on a *makara*, and Yamunā on a tortoise.

The conclusions arrived at by the consideration of the names of Vishnu, Śiva and other gods and goddesses together with a brief description of their iconographical features and their correlation with early epigraphic, numismatic and sculptural data must be regarded tentative until the whole of the *Mahābhārata* is studied on similar lines. But if these data also turn out to be of an identical or similar nature then it may be said that :

(1) the *Mahābhārata* evidence points to an earlier stage of the evolution of the iconography of Śiva, Vishnu and Surya, and the goddesses Śrī, Sarasvati, when these were primarily two-armed and ordinarily one-faced.

(2) Ganapati was still in the distance.

(3) Vishnu had begun to be identified not only with Dvarakā-Krishna but with also "Gokula." or "Gopāla"-Krishna.

Conversely the part or parts of the *Mahābhārata* text are very likely of early or pre-Christian date.

When, however, the whole of the *Mahābhārata* will be studied on similar lines, and the data compared with the similarly worked out data from other Puranas (for the present only slight use is made of Patil's studies in the *Vāyu Purāṇa*, and from early numismatic, sculptural, and epigraphical sources, then it will be possible not only to explain the development (and the factors which contributed to this development) of Hindu iconography, but the rise and development of various cults, the several names of various deities, and also the relative age of the *Mahābhārata* and the *Puarana* passages.

1. *Ibid.*, 1,206.3.
2. N_1V_1 (a Newāri Manuscript)
3. Banerjea, *op, cit.*, p. 33.
4. *Mahābhārata* 1.92,27.

MORPHOLOGICAL EVOLUTION OF NATARAJA

No better work than *Naṭarāja*, scholarly yet full of faith and devotion, could have been offered to the memory of Jawaharlal Nehru by one of the first Fellows honoured by his name. Three rare features are represented in this work : the elucidation of the stance of the Nataraja, the symbol of truth and beauty, realisation and dissolution, force and rhythm of movement and change; 'time flowing and time still' by a person who is not only a great scholar of Sanskrit, epigraphy and iconography, a poet and an artist, but a true devotee. Hence Sivaramamurti has the courage and modesty to tell us that "On the third of January 1969, I bowed to the Dancing Lord at Chidambaram after witnessing his sandal bath..., and I commenced my study of the theme..., and again on the same occasion on January 10, 1971 I completed it with the satisfaction that it has been possible to elucidate to an extent the import of the Lord's dance"[1]

It is to be acknowledged as an impassioned offering, which transcends the bounds set by chronology or historical analysis. For though there is a definite attempt to treat the various aspects of Śiva as Nataraja and the phenomena which go to constitute dance and music and the musical instruments, still Sivaramamurti is so much one with the subject that like a true lover who does not care whether his beloved is beautiful or ugly, he loves her. Sivaramamurti does not mind going backwards and forwards, or quoting a late inscription or a text like *Lingapurāna*. While this may not matter for an appreciation of the theme of Nataraja, a student interested in the true development of the personality of Śiva and Nataraja, and also the accompaniments should follow a strict chronological method. And while so doing, the age of the sources used should be kept before one's mind.

It is from this point of view that this otherwise exhaustive work, replete with quotations from Sanskrit texts and their translations, and illustrations from monuments and paintings in India and outside, is here re-discussed.

Chapter One on Nataraja—the Lord of Dance—is introductory. Here the impassioned author tells us how Śiva chooses the evening for his dance. When it is dark he lights up this darkness for his own effulgence. This cosmic dance can be appreciated only by Brahma, Bharata, Hari and Narada; gods and goddesses not only witness and applaud this dance but also join it, creating the orchestra for Śiva.

According to one tradition, Śiva's dance is primarily associated with several *Rishis*.

1. Sivaramamurti, *Nataraja in Art and Literature*, New Delhi, 1974, p. x.

And Śiva not only dances, but like an expert musician or an orchestra director, corrects his orchestra whenever necessary. This is proved by epigraphical as well, as Puranic evidence.

In this connexion we are told that in the North Śiva is known as Nartaśvara; in the South as Nataraja. Now the names—though apparently with the same meaning—have some significance, for in an inscription from Cambodia, Śiva is called Nritteśvara and Nātakeśvara because it was probably under Pala influence and not the Chola that the Indian influence had reached Cambodia. But further, on the evidence of the figure of Karaikkalammaiyar, it is argued that the influence was mainly Pallava and Chola.[1]

Sivaramamurti also tells us that literally hundreds of temple dancers—danseuses—came to be presented to Siva temples, particularly in the South. The custom is traced to the fact that Śiva is not only the Lord of *tāṇḍava* and *lāsya* in both varieties of *nritta* and *nritya* but he is also the Lord of *nātya*, actor on the World Stage. He is expressly so called—Nātakeśvara—in a Cambodian inscription. But the question will be, as will be shown below, when did this custom of so many danseuses propitiating the Lord arise ? whether in the North or in the South ? Was it ever possible in small temples with a *garbhagriha* and the *maṇḍapa* only 1.2, 2.4, 3.6 m square ? Though the *Nātayaśāstra* is attributed to Bharata it is said to be based mainly on what he saw as the interpretation of *rechakas*, *karaṇas*, and *angahāras*, as Śiva danced, and, by word of mouth, explained their nuances, still, the entire evidence, as supplied by Sivaramamurti himself, shows that the proliferation of the dance poses of Śiva is paralleled by the growth in temple sizes and this is particularly noticeable in the South. Hence the question needs to be treated critically.

The sound of Śiva's dance steps recall the rhythm in martial music. Epigraphical evidence as well as evidence from early Tamil literature is cited. But again the question is : how 'early' are these ? Not earlier than the 7th—8th century, when *Śivamahapurana* and *Lingamahapurana* composed elaborate descriptions of Śiva's victory over Tripurāsura.

It is not clear whether the author regards the Tripuras as inhabitants of or Lords of Tripuras, or Tripuras as opponents—but it is their lord who was killed by Śiva with one arrow.

Music and dance always go together, and our author thinks that the word *Śilpa* occurring in the *Kauśitaki Brahmana* had both in mind and that is why Śiva is sometimes depicted as Lord of music with the flute and as dancer carrying the lute. And to support his argument, he cites Śunga a terracotta representing Śiva as Vīnādhara Dakshiṇāmūrti—as the teacher of music, and dance.

Lastly the drum. This is the first musical instrument to be sounded, both for music and for dance. While orthodox authors might be reminded of the chanting of the *pranava* or *Omkara* at the commencement of the Vedic chant, is it not also the first

1. Sivaramamurti, *op. cit.*, p. 353.

instrument to be sounded in any folk festival, both by the aboriginals and others ? Thus the antiquity of this instrument and its use might lie miles apart !

Having thus introduced the subject, Sivaramamurti discusses each of its aspects, beginning with *Nātya*.

In Chapter Two entitled "*Nātya*" Sivaramamurti tells us that *Nātya* has always been regarded as a pleasant ocular sacrifice, and in its scope includes all the themes of life, which it vividly portrays. It exhorts the audience (people) to live the ideal life in the path of righteousness, prosperity and fame.

Besides two well-known varieties, *Tāṇḍava* and *Lāsya*, all the varieties may be grouped into *Mārga* (or classical) and *Deśī* (or folk), such as *Rāsa* played by Kṛishna and the Gopis.

Though dance was very popular in India and probably at every function of importance in ancient India it was practised, it is said to be specially so with worship, and particularly with the worship of Nataraja where the *nātyamaṇḍapa* was devoted to the exposition of Bharata's *Nātyaśastra*. But how early could it be ? Not before the early centuries of the Christian era, though we do see some dance scenes at Bharhut celebrating the festival of the adoration of Siddhartha's turban or his enlightenment.

It is this idea which gradually developed, viz. the ultimate, the noblest aim or purpose, being the adoration of the Lord, whether it be that of Siva by his devotees, or by Śiva to please Vishnu as so explicitly described by *Vishnudharmottara*. These are, however, sectarian viewpoints. For, later the idea also developed that Formless Śiva (*Linga*) assumes form to enjoy dance, and so also gods took delight in Dance and began to dance. So we have dancing Ganeśa, though I have not seen a dancing Brahma.

As dancing developed as an art naturally it had to be studied both by the dancer, as well as by those who witnessed it, particularly the princes, who were the patrons. And the dancer had to have certain physical and mental qualities. These were believed to have been crystalized by the time Kalidasa wrote the *Malavikāgnimitra* and the Mathura artist produced the Bhuteshar Yakshi. But both these are at least 2500 years later than the bronze dancing figures and similar thin waisted and heavy hipped female terracottas from Mohenjodaro and Harappa (pls. 23-26). For "It is not only in action that the damsel looks so charming but when she rests for a while, that her disposition arrests. A pause after a dance, with one hand on the hip and dancing on one side" (pls. 23-24).

But we do not know whether this is the only natural pose which a dancer would resort to, or this is the pose which a dancer in India normally adopts. If the latter alternative is accepted then we may say that there was a long tradition which the Mathura artist and Kalidasa were recording, for as said above, these were well-known in the Indus Civilization. With these grew the essentials of the Dance, as we know today. More and more sophistication followed as desire to show by some physical gesture the slightest change in the mood was to be sought. Now all these might be studied historically and documented archaeologically, beginning with the numerous terracottas from Harappa and Mohenjodaro (pl. 26). Can the various *Karaṇas* and *angahāras*, (poses and movements of hand and gestures) depicted in the Sudharmadevasabha at Bharhut be named ?

Thus though *Nātya* is ageless and originates with the desire of man to express himself, still in India alone with her long literary history, and still longer archaeological record, and surviving folk-dances, one might prepare a good history of Dance.

Chapter Three is devoted to the discussion of the significance of Śiva's Dance. For a fuller perspective this, perhaps the most important aspect, should be treated again historically, archaeologically, and then philosophically. Would it be right to say that the various philosophical interpretation sought to be given by the great Śankara, composers of various epigraphs (cited by Sivaramamurti), much later *Skandapurana* and early Tamil literature were there right from the beginning? Sivaramamurti himself is consious of this problem, (though he himself has become a victim of the same fervour, when he tells us that Śiva's dance as understood by the seers is explained with almost an esoteric fervour by Coomaraswamy .[1]

Philosophically the various Nataraja poses have been explained or designated as the dance of Omnipotence, Dance of Immanence, Dance of Time and Eternity and Dance of Omniscience. The first is best illustrated when Śiva is shown in an *ālīdha* posture, destroying Tripurāsura. The second is depicted in *ashtamurti*—symbolic of Śiva's presence everywhere. The third is that of Kālāntaka—Śiva shown dancing on the prostrate body of Death himself, Yama; the last is best seen in Śiva dancing with the Vīnā. This signifies his supreme knowledge as *Sarvajña*. Variations in this form—Dakshināmurti—are also met with. Śiva dancing in Ardhanariśvara form signifies creation and sustenance.

From the main form of Śiva scholars have tried to attribute significance to the various ornaments of Śiva. For instance, the moon on his head, and the skull, and so on. Indeed, it would be worthwhile if one could study in space and time, the iconographic development or diffusion of this theme.

Sivaramamurti then explains the significance of Śiva dancing on the Bull. The latter represents passion and desire. Here I might cite a very interesting discovery made at Inamagon (Pune district). In our excavation we found a clay box containing a standing nude goddess, and on the box, a similar goddess but headless which could stand on a bull with the help of a small stub in the navel of the goddess and the back of the bull. This is the earliest archaeological record of a figure standing on a bull. So this form is indication of the Suppression of Desire or *Kāma*. Reference is also made to the school of Saivism where Śiva is regarded as Universal Soul dancing in the Heart-Lotus.

While all this might seem as the work of sectarians who sought all possible interpretation in Śiva's iconographic forms, a most welcome symbiosis was effected at Chidambaram, where we have Śiva as Nataraja and Vishnu as Govindaraja sleeping on Śesha. And these are regarded as the Dynamic and Static aspects of identical concepts. And this is beautifully explained by Appayya Dikshitar. One of the hymns must have been composed after seeing these two beautiful forms at Chidambaram.

1. Sivaramamurti, *op. cit.*, p. 24.

Chapter Four explains in detail the various dance poses mentioned by Bharata in his *Nātyaśāstra* and depicted for the *first time* on the walls of the Brihadiśvara Temple at Thanjavur, where Siva himself is shown performing all these *Karaṇas* and then on the *Gopuram* at Chidambaram. We are told that the earlier series is nearer the spirit of Bharata's text. This visual discussion, panel by panel, is very illuminating. For, it is the first time that no less than 81 dance poses are so discussed and illustrated. Now the question is this : was this a visual presentation of a textual description or have all or some of the dance forms been depicted before ? If so where ? Such a kind of study may now be taken up. It would be relevant to inquire as to how many dance poses have been depicted in various parts of India, strictly following Bharata's text ? Is the text we have not interpolated later ?

We are given in Chapter Five the various *karaṇas*, dance movements, of Vishnu as Krishna depicted in the entrance to the *gopurum* of the temple of Sarangapani in Kumbakonam. Whether in friendly competition or otherwise, this Vaishnavite version of the Saivaite series from Thanjavur is welcome.

For, normally all over India, scholars as well as laymen, are aware of Krishna's *Rāsalīlā* when he danced with Gopis or when he danced on the hood of the cobra *Kālīyā*. The former is indeed a folk-dance, still practised in Gujarat by men and women, or sometimes by women, and called *Ḍāṇḍiyā Rāsa*. The earliest of these is said to be of the Gupta period at Bagh (painting) and Deogarh (sculpture) in Madhya Pradesh. The former has been identified as *Hallisaka* by Dr V.S. Agrawala.

However, what is witnessed in Kumbakonam seems to be a peculiarly Tamil (Chola) affair.

Just as this place was chosen to depict Krishna as a dancer in as many poses as Siva himself, all over India, poets, and sculptors started depicting Ganeśa as well as the Mātrikās in dance poses. Kalidasa seems to be the earliest writer to speak of Kalī as a dancer in the *Kumarasambhava* ; actual figures are at least two centuries late, and many still later. Of these, the two Devi figures from the Udayeśvara temple at Udaipur seem to be most beautiful. Striking also is Sarasvatī dancing on swan from Palampet, Andhra Pradesh.

Whether stemming from the Nataraja motif, or as an independent movement, there is little doubt that the Dance has inspired some of the finest figure-sculptures in ancient Indian art. But it was religious or hieretic. It could have been realistic as well, if the artist had rendered in sculpture what the author of the *Haravijaya* says about Skanda and Parvati. We are told that :

"Skanda, a son of Śva and Pārvatī, was also enthusiastic in joining the festival of dance. Naturally in juvenile fashion, he decides on gesticulation of *hāsya*, fun, and so he assumes the role of a *Vidūshaka* (jester). As a child, he takes certain liberties and so he pulls at the crescent moon of his father, to use it as the *Kuṭiladaṇḍa* or the crooked staff. Parvatī who witnesses all this dance, cannot help heartily laughing at the sight. Śiva, as he dances, has his crescent moon pulled by Skanda dancing in the role of a *Vidūshaka*, brandishing it as a curved hand stick, Pārvatī laughinghly looking on enjoying the fun."

The whole scene could have been depicted in a panel. But this was not to be.

How early is the concept of the Great Dancer? Sivaramamurti tries to trace it to the Vedic period, but the evidence is slight. In fact very tenuous. We shall have to examine this in some detail in order to understand the confusion created by the author by citing a very, very late—and probably purely or distinctly Southern—concept and an early Vedic expression.

Nataraja, we are told, is usually associated with the *chitsabhā* in Pundarikapuram, Chidambaram. He is there in the golden hall, as the Prince among Dancers and the Lord of the Assembly. Hence Śiva is known as *Sabheśa* or *Sabhāpati* or Natana-sabhapati.

Now this concept of the Lord of the Assembly is sought to be derived from the *Rudra-Adhyāya* of the *Taittirīya*, *Vājasaneyi* and *Kaṭhaka Samhitās*. But what about the intermediate steps or stages? The expression *Sabhāpati* in the Vedic texts seems to have been used in a very general sense. Here there is no question of a dancer, dancing before an assembly, while the later concept describes an actual state witnessed by a hymnist in Tamil Nadu.

Likewise the close devotees of Nataraja at Chidambaram, viz. the sages Patanjali and Vyaghrapada are said to be those of the Upanishadic age. There is so much mix up about these names in Sanskrit literature, because there are at least two or three Patanjalis one the author of grammer, another of Philiosophy and *Yoga*, and the third the devotee of Śiva. The same about Vyaghrapāda. He is here connected with one Vyaghrapadiputra mentioned in the *Brihadārṇyakopanished* and *Chhandogyapanishad*. The probability is that with the revival of Hinduism in the fifth century and its great popularity in the South, many old traditions were revived, and traced to the Vedic period.

However, citations from the *Mahābhārata* describing Śiva as a great dancer and musician, Śiva multi-armed, Śiva in the company of Parvatī and *ganas*, Śiva as a propo-under of grammar, are certainly late. Here the author still seems to be thinking that the entire *Mahābhārata* is an early work, next in antiquity to the *Vedas*, whereas it has been convincingly proved that the *Critical Edition* is not earlier than the early historical period, and some portions of it of a still later period. This has been pointed out by me in some detail elsewhere. It has been shown there that the verses cited from the Drona and Anusasana Parvas have been either dropped or put in the Appendix in the Critical Edition of the *Mahābhārata*.

From the Section on 'Dance and Music in the Veda', we learn that not only these were very popular but supposed to drive away our blues and prolong life. The various musical instruments such as the drum (*āḍambara*), *dundubhi*, *Vana* (flute) and *viṇā* (lutes as well as a harp with 100 strings (*Śataturi*) as well as the seven notes (*dhātus*) are mentioned in the *Rig Veda*. But we are also told that the dancers were Indra, then Aswins, and Ushas (the Dawn). But amongst these figure neither Śiva-Rudra nor Vishnu. And this is but natural. For it is these gods who later appropriated all the

qualities and functions of Indra, Surya and Brahma (and particularly of the first, Indra). In fact, as Sivaramamurti has cited, it is Indra, as the immortal Dancer, armed with various weapons, and as a great warrior, who distantly was the source of inspiration for the early historic Nataraja, and particularly as destroyer of Tripuras, as remover of *Māyā* and as Lord of Animals (*Paśupati*). The concept (and its depiction) of Siva dancing with the seven sisters or mothers (*Saptamātrikās*), may have its origin in a folk-dance, though Sivaramamurti also traces it to the *Rig Veda*, where the stones are made to dance with sisters and re-echo with their sound. In this connexion, I would cite a dancing scene from a cave at Aurangabad—Tara dancing with the help of six orchestra players (pl. 32). It is one of the first and most artistic representations of the orchestra, and seems to have been missed by our erudite and versatile author.

'Naṭarāja pictured in Literature' (Chapter Eight) offers nothing new; many of the works and authors have been cited before. It is very selective. While the themes chosen and described from *Raghuvamsa* or *Haravijaya* or *Gaudavāho*, *Anandasāgarastava* and many others are certainly interesting, it would have been really instructive had a more regional and chronological order been followed. We would have learnt how, when and where, the Nataraja theme has developed. And this Sivaramamurti, with his command over Sanskrit and vast knowledge of epigraphy and literature, could have easily done. At present it would appear that the movement began in the North and then profiliferated in the South.

Nataraja in hymnal literature would be welcome to those who do not know and are unacquainted with the rich literature of this type which had come into existence, particularly in the South. It all seems to be late,[1] post-eighth century, and it is doubtful if the *Suvarṇamālā stotras* and other *stotras* attributed to (great) Śankara were really composed by him.

Chapter thirteen provides indeed a feast of Nataraja figures. These range from those depicted on early Indo-Greek coins and Sunga terracottas—of course comparatively very few, through the Gupta, Vakataka, Chalukya and later early medieval dynasties like the Gurjara-Pratihara in the North and Pallava-Chola and Pandya in the South, with exquisite reproductions of paintings from Ellora, Chidambaram and 17th-18th century paintings from Karnataka, Kerala, Tamil Nadu, and Chamba. In all there are 242 figures some of them in colour. Only a Nehru Fellowship and the publication by the National Museum could have made this feat possible. The treatment is both chronological and spatial. Each section or sub-section is enlivened by some comment on the artistic creation. Here of course Sivaramamurti writes like a master, with his unique knowledge of Indian art and iconography. He seems to be equally at home in the next chapter (Fourteenth) were he surveys the Nataraja concept beyond Indian frontiers. This is illustrated with no less than 40 figures (two being line drawings from a manuscript in Ecole Fancaise d' Extreme-Orient.)

1. Sivaramamurti, *op. cit.*, p. 131,

An item of singular interest may be mentioned here. It is that the portrayal of Nataraja and other forms of Śiva come not only from Ceylon, now named Sri Lanka, but even from the distant Champa (Viet Nam), Cambodia and Thiland. Not only that. even Kāraikkālammaiyar[1]—a close devotee of Śiva—is found portrayed in association with the Lord.

Neither this interesting yet pathetic and ennobling story nor its portrayal in stone, bronze or painting is known north of the Kaveri or Palar, as far as my knowledge goes, and as would appear from Sivaramamurti's review (though the names of the husband, wife and daughter are typically early north Indian). Still the story which we are told is historical, and its portrayal found in Cambodia, Thailand and Ceylon. Thus we cannot have a better example of Tamil influence—or say cultural colonization—in South East Asia than this figure of Kāraikālamaiyar. Hence it has been thought advisable to reproduce it for readers other than Tamilians (pl. 38).

Just as Tamil stamp is attested to by this figure, (though other names are not)

1. Kāraikkālammaiyar orignally called Punitavatī was the daughter of a rich merchant of Kāraikāl, named Dhanadatta. When she grew up to be a maiden and was wedded to Paramadatta, she lived happily and was a model wife. On day Paramadatta was offered two rare mangoes which he sent home to his wife. In the meantime arrived a hungry saivite mendicant at her door whom she heartily welcomed, fed and gave a mango. On the arrival of her husband, gave him the remaining one; it tasted so delicious that he asked for the other one also. Embarrassed and unable to give him the fruit, she prayed to God, and miraculously a fruit of divine taste appeared in her hand, which she offered to her husband. He felt the taste so different and so overwhelming that he queried how it was obtained. When she told him the truth, the wonderstruck husband asked for another. She repeated her prayer and offered him another fruit which she had obtained with divine aid. As Paramadatta received it, the fruit suddenly disappeared from his hand. This time the husband was embarassed. Having felt himself unworthy of so divine a damsel, mentally elevating her to almost divine respect and sanctity, he could not treat her as his wife anymore. Setting sail in his pursuit of trade, he reached a distant seaport where he settled down after marrying another maiden there. With his deep respect for his first wife, he named a daughter born to him Punitavati, after her.

When Punitavati learnt in course of time that her husband had settled in the Pandyan realm, she eagerly journeyed to reach him. Appraised of her arrival, Paramaßatta reverently approached her with his family. When asked by his relatives, about his propriety in bowing to his wife, Paramadatta explaiɢd how she was divine in his eyes and always an object of worship for him. This so disappointed Punitavatī, that she immediately prayed to God that she should be shorn of beauty and charm which she had hitherto welcomed only for her husband, and which was of no use to her any more. She now desired to be made a fearful and emaciated hag. Her only interest in life thenceforth was adoration of Śiva, singing his praise and playing the cymbals for music and prayer. Devoted to the service of God, she was always addressed by everyone as *Ammaiyar*, the mother.

The story goes that she approached Śiva in Kailasa and was welcomed by him, addressed even by the Lord as *Ammaiyar*. Her request to gaze at the dancing Lord and enjoy the perfection of his art was assured to her by Śiva at Tiruvalangadu.

Kāraikālammaiyar is always represented in sculpture seated in the vicinity of dancing Śiva, keeping time, along his *ganas*.

so Graeco-Roman influence is definitely seen in the 8th century wall painting from Tadjikistan, Central Asia. Here the models, however distant, are the earlier 1st century B. C. Indo-Greek coins and a copper seal from Taxila (pls. 32-34). Sivaramamurti (and also P. Banerjee) have drawn our attention, to the *ālīdha* posture of Śiva, but not less interesting is the Roman helmet worn by Śiva; this has been missed by Soper and P. Banerjee as also a reference to their article in *Artibus Asie*, vol. 31, 1959, pp. 73-80 would show. Indian culture however strong, had not taken the 'classical' dance form to this distant land, as it had done in South East Asia.

Finally Sivaramamurti tells us about spots specially associated with Nataraja and their performance. Beginning with the *Adrisabha* (dance hall in the Himalayas), the significance of which is explained on the authority of a 12th century author Mankha, he passes to *Chitrāsabhā* at Chidambaram and Tiruvengāḍu or Svetāraṇya, near Sirkali. At this place is also the *Ratnasabhā* and the story is related to the dance contest between Kali and Siva, in which the latter won because he shot up one of his legs, and lifted up a hand to reach it (*ūrdhvatāṇḍava*). Poor Kali out of modesty,[1] could not lift up her leg and was humbled. This place has a small shrine of Kālī with a *Ratnasabha.*

Madurai has *Rajatasaba*, while Kuttalam has *Chitrasabha.* But the finest and the best known is the golden hall, *Kankasabha* at Chidambaram, which even Fergusson regarded "as the more graceful and more elegantly executed than any other of their class in South India."

These *Sabhas* are a special feature of the South, Tamil Nadu in particular. Nothing of the kind has been known or made north of the Palar. Though outwardly an elegant piece of architecture, their real purpose was that here the devotee would concentrate and contemplate on the deity and thus get over *māyā*, and attain beatitude.

All told it is a great book. Few scholars other than Sivaramamurti could have written it. And for this, he as well as we should be thankful to the founders of the Jawaharlal Nehru Fellowships, and to the National Museum. If some ancillary topics require a more detailed and historical treatment, these can form the subject of independent research.

Meanwhile, a brief, albeit sketchy, line of development of the historical Natarāja

1. We may add that Kali need not have felt humbled, for Pavlova or any good ballet dancer today could have shot up her leg like Śiva, though many trouser-clad modern girls would have certainly failed.

from the hoary prehistoric times is here presented.[1]

In chapter 13 entitled 'Natarāja Form in Sculpture and Painting', we see only a two-armed Śiva with *Khatvāṅga* combined with *triśula* but in *ālīdha* and *pratyālidha* trampling Apasmara, on the Indo-Greek coins and a copper seal from Taxila of the first century B. C. (pls. 29-30). The legend '*Sivarakshita*' definitely suggests that the issuers of these coins were followers of Śiva. Later we notice an identical pose of Śiva wearing a Roman helmet from a wall paining from Tadjikistan, Central Asia. (pl. 34). Here, up to the 8th century, the earlier influence had persisted. Then there is a terracotta said to be Śunga (2nd century B. C.), where we have a Vīnādhara Dakshināmurti, Śiva seated on a bull with *ganas* below, carrying a harp-shaped *Vinā* in his hand.

While all these are important in tracing the development, for a full fledged Nataraja we have to depend upon 5th century Gupta figures from Central India, Orissa, Maharashtra, then Karnataka and Tamil Nadu (pls. 36-40). It is possible, nay probable, that with more systematic and large-scale excavations of historical sites, more evidence will be found, but this is not likely to change the main lines of development of the Natarāja form indicated here. Briefly there are two or three, probably parallel but mutully independent, lines of development.

Morphologically we have to start with the Indus or the Harppan Civilization—a source Sivaramamurti has consciously avoided or unconsciously missed. In this, besides the famous copper-bronze female dancers (pls. 26-27), both standing in characteristic pose, either before or after dance, we have the black stone mutilated figure, with three heads or faces which Marshall thought could be the prototype of youthful Siva Natarāja (pl. 30).

Then there are several small terracottas, figurines, where the person is shown standing with legs bent and spread out. This may be a pure mimickery or a dance pose, called *maṇḍala* (pl. 26).

From these *c.* 2500 B. C. figures up to 3rd century B. C. we have no sculptural evidence.

But if we examine the evidence supplied by Mohenjodaro then the bronze dancing figure could be *originally* a folk-dance pose, adopted by the citizens of Mohenjodaro as it certainly was, when they cast the pose in copper/bronze.

But the mutilated figure, unfortunately broken from the thigh where it turns abruptly, seems to be highly sophisticated, and if Marshall's reconstruction is correct, it

1. Dr. Kapila Vatsyayana's article "Classical Indian Sculpture and Dancing" *JOIB*, Vol. XI, 1961-62, pp. 247-59. I was glad to note that she has tried to identify the various dance poses, right from the Harappan times, through the early dance scenes in the Rani-gumpha cavc at Udayagiri, then at Amaravati, Gupta sculptures at Deogarh, Saranath and Gwalior. She thinks that the small Harappa statutette must have had its leg raised in *Bhujanganchita* variety. And though one might identify some dance poses at Bharhut, still, the dancing attained maturity only in the Gupta period.

could be a dance form, comparable to *bhujangatrāsita*, where the left leg is taken right across and the figure stands on one leg only.[1]

In the end we may say, that if the Harappan Culture or the Indus Civilization is proved to have a proto-Dravidian base and the three representations on the seals from Mohenjodaro are also shown to be those of proto-Śiva, and the mutilated grey steatite figure a form of dancing Śiva, then it is but logical—nay a historical necessity—that Chidambaram and other places in the South, with such royal patronage for centuries, have produced some of the most inspiring hymns and artistic figures of Śiva Nataraja. And probably a Chola Nataraja on the cover page, would have made the book look more artistic than the three coloured reproduction of a late 18th century Chamba painting showing Śiva and Devi witnessing dance.

1. Sivaramamurti, *op. cit.*, Fig. 36 and p. 193.

15

UNITY OF INDIAN CULTURE

The current controversy about Hindi and Tamil ignores the fact that 2000 years ago in spite of several independent and semi-independent States which often fought with one another, Indian Culture was still fundamentally one. No doubt, there were local or regional differences due to physiographical or environmental causes. And this is true of south India as well.

Not only had the Tamil rulers and traders in the 2nd century after Christ used Sanskrit as the 'link language' in their cultural conquest of South East Asia, as so well established by Prof Jean Filliozat at the recent World Tamil Conference in Madras ; but much earlier their form of government and administration as well as the social make-up was not fundamentally different from that in north India.

This feature was recognised by serveral south Indian scholars of the past generation who had studied classics known as the *Sangam* literature. Of late, owing to the rise of regional patriotic fervour, scholars all over India strive to emphasise the regional aspects, more than the all India features of our Culture.

Dr Subramanian, the author of the *Sangam Polity* claims that he has gone through all the original works in Tamil and not relied on translations and, therefore, he can present a more true idea of the Culture as it obtained in the South nearly 2000 years ago and earlier. He relies primarily on the Tamil sources and incidentally on foreign notices of south India and much less on archaeology, though as will be pointed out later, during the last 20 years enough archaeological evidence has been made available through excavations to say something positively about the individual character of the proto-historic south Indian culture.

That apart, we are more concerned with the early history of south India, particularly of Tamil Nadu. The evidence is culled from the *Sangam* literature which spans a period of no less than five to seven centuries. Unfortunately we have no clear chronological idea of the various works and, therefore, it is not possible to trace the development of either the original Tamil or the Sanskrit-oriented cultural forms and concepts.

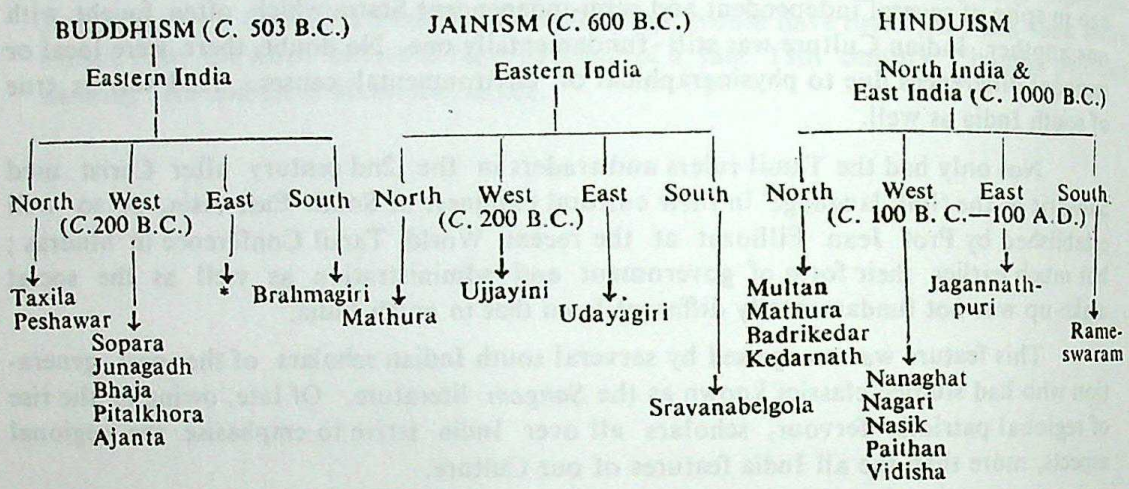
The word *Sangam* itself (Dr Subramanian himself says) is possibly derived from the Sanskrit-Buddhist word *Sangha*. But he does not know how it came to be applied in south India viz. "an assembly of scholars." A little consideration will show that the Buddhist *Sangha* was not only a fraternity of monks, but it was also an assembly or council of scholars.

One of the earliest such councils, we are told, was convened by Aśoka and there were two or three more in the time of the Greek king Menander and Kanishka respec-

tively. Thus it is possible that the word *Sangam*, meaning an assembly of scholars or scholarly works can be traced through *Sangha* to its original meaning. But we must give credit to the Tamil for the connotation that the word came to acquire in the South, namely a literary academy established at Madurai and earlier elsewhere. This usage is not earlier than the 7th century A.D.

TABLE 1

RELIGION



However, if one studies dispassionately the various details in this very rich literature—the form of Government, including the Council of Ministers, the social stratification, the institution of bankers and businessmen and their names as well as other features of daily and ceremonial life—more than 50 to 70 per cent, resembled what existed in the North. Here we should not worry about tracing the origin of this or that concept or term—whether the South derived it from the North or the North from the South or both from some other source. The fact is that we find, if we arrange in parallel columns the various details mentioned above, there is no fundamental difference.

That the culture in south India was not fundamentally different can be seen from a few illustrations.

Kingship was hereditary and it is most interesting to find that succession was not matriarchal but patriarchal, a conclusion which is said to be supported by this entire *Sangam* literature but which is at variance with the general notion of sociologists. For instance, Dr (Mrs) I. Karve in her recent studies came to the conclusion that in the South succession was mainly matriarchal. But this we are told is a recont development and applicable to Kerala only. And this system of inheritance prevailed in all the three kingdoms, viz. Chera, Chola and Pandya, i.e., the entire south India. Nowhere is an instance, we are told, of a woman ever succeeding to the throne in her own right. The selection of the king by popular approval is also rued out.

TABLE 2

ADMINISTRATIVE ORGANIZATION

NORTH INDIA
C. 300 B.C.—100 A.D.
From Aśokan Edicts & Megasthenes

I. King Supreme Head of Military, Judicial, Executive and Legislative functions.
II. Crown Prince—*Yuvarāja*
III. Court
IV. Council of Advisers
  1. Chief Minister (*Agra-amātya*)
  2. *Kumāra* (who acted as Viceroy)
  3. *Prādesikas* or *Rāshtriyas* (Provincial Governors)
  4. *Rājuka*, District Magistrate (?)
  5. *Yuta*, District Treasury Officers (?)
  6. *Mahāmātra* (Heads of Special Departments)
  7. *Dharmamahāmātra*
V. Military Organization
  1. Infantry
  2. Cavalry
  3. War Chariots
  4. Elephants of War
  5. Transport

CHOLA, CHERA, PANDYA
From Sangam Literature

I. King (*Ko, Mannan, Vendan*) one who wears a crown } Three Kings Called *Vendar*
II. Succession
  Patriarchal and not Matriarchal
  The Crown Prince (*Komahan*) Succeeded
  This also called *Paitiram* (From *Pitru*)
III. Court
  (Called *Avai*, supposed to be from the Sanskrit *Sabha*)
IV. Royal Insignia
  Umbrella,
  Whisk,
  Sceptre, etc.
V. King's Functions
  Among several other things performing sacrifices
  (a) *Rājasūya*
  (b) *Aśvamedha* (*Turanga Velvi*)

ADMINISTRATIVE ORGANIZATION
From Kautilya

King
Crown Prince
Court
Council of Ministers
Mantriparishad
Ministers In-charge of several Departments such as Audit and Accounts
Treasury
Weights & Measures
Purohita
Senapati

THE KING ASSISTED BY TWO INSTITUTIONS

Aimperunkulu & Eṇperayam

Aimperunkulu consisted of
1. Minister (*Amaichchar*)
2. Purohits (*Purohitar*)
3. Army Chiefs (*Senapatiyar*)
4. Ambassadors (*Dutar*)
5. Spies (*Orrar*)

Eṇperāyam included
1. *Karaṇattiyalavar* (Accountant)
2. *Karumakārar* (Executive Officer)
3. *Kanakaśuarram* (Treasury Official)
4. *Kaḍaikāppāḷar* (Palace Guards)
5. *Nagar Māndar* (City Elders)
6. *Paḍaittalaivar* (Chief of Infantry)
7. *Yānai Virar* (Chief of Elephantry)
8. *Ivuḷi Maravar* (Chief of Cavalry)

The symbols of royalty were the weapons, the sword, the plough, the umbrella, the drum, the horse, the elephant, the chariot, the garland and the crown. This small list is later increased to 21, but essentially these are 8 and though the words or the names are in Tamil, still these are in no way different from what was found essential for a King in north India right from Vedic times.

The Court of the Tamil Kings was called *Avai* ; this is said to be a corruption of the Sanskrit *Sabha*, and is found in the earliest extant Tamil text *Payiram* to *Tolkappiyam*. The king was assisted by two bodies one called *Aimperunkulu*. This consisted of ministers (*Amaichchar*), Purohit (*Purohitar*), army chief (*Senapatiyar*), envoys or ambassadors (*Dutar*) and spies (*Orrar*). Here unfortunately, we are not told when earlier these occur in *Sangam* literature, whether in *Silappadikaram*, *Manimekalai* or *Maduraikkanchi* or in still earlier works. For here all the names except the last are positively derived from Sanskrit. Barring the addition of Tamil suffixes, one cannot doubt there was north Indian influence or the practice prevailing in the North was accepted in the South.

There was another institution called *Eṇperayam*. This consisted of (1) *Karaṇattiyalavar*, (2) *Karumakarar*, (3) *Kanakasurram*, (4) *Kaḍaikāppāḷar*, (5) *Nagar Māndar*, (6) *Paḍaittalaivar*, (7) *Yānai Virar* and (8) and *Ivuḷi Maravar*. These terms respectively stand for accountants and executive officials in the secretariat, treasury officials, palace guards, city elders, chief of the infantry, chief of the elephantry and chief of the cavalry.

Here the positively fully Tamil names are numbers seven and eight only, whereas numbers one to six are Tamil forms of Sanskrit which we meet with much earlier in Kautilya's *Arthasastra* and other works in the North. It may be that these were not directly derived from the North, but there was a common source from which both were derived. The important thing for our purpose is that both the North and the South had almost the same form of administration.

Apart from the administrative institutions, individual officials who did the bidding of the king are also mentioned. Among them, the minister was a very important official. He was called *Amaichchar*. The word has been derived from *Amatya*, a Sanskrit word. *Mantri* is again a Sanskrit word. Valluvar calls the *Amaichchar*, *Ulai Irundar* (i.e. those that are nearby), and Kadiyalur Rudran Kannar calls *Amaichchar*, *Surram*.

TABLE 3

ADMINISTRATIVE ORGANIZATION NORTH INDIA *C.* 100 A.D.—*C.* 1000 A.D.	DECCAN	ADMINISTRATIVE ORGANIZATION *C.* 100 A.D.—*C.* 1000 A.D.
I. King later called *Rājan* before 300 A.D. *Mahārājadhirāja*	*Dharma-maharaja*	I. *Dharmamahārāja*
II. Crown Prince (*Yuvaraja*) (succession patriarchal, hereditary, usually eldest son succeeded)	—Do—	II. *Yuvamahārāja*
III. Court (*Sabha* or *Dharma—Sthāna Adhikaraṇa*)		III. —Do—
IV. Council of Advisers (*Mantri Parishad*) 1. Chief Minister (*Mantri*) 2. Religious Adviser (*Purohita*) 3. Commander-in-Chief (*Mahābalādhikrita*) 4. Foreign Minister or Minister for War and Peace (*Sāndhivigrahika*) 5. *Amātya* 6. *Āyuktaka* (in charge of District and Chif towns)		IV. *Mahādaṇḍa-nāyaka* *Senāpati Amātya*
V. Town Administration (*Adhisthāna-Adhikaraṇa*) 1. Mayor or Guild President (*Nagarshreshthi*) 2. Chief Merchant (*Sārthavāha*) 3. Chief Artisan (*Prathama Kulika*) 4. Chief Kāyastha (*Prathama Kāyastha*)	—Do—	V. *Āyuktaka, Adhyaksha, Rāshtrika* (*Deshādhikrita* — Officers in charge of Province) *Gaulmika* (Chief of Military Outpost) *Bhaṭa Manusha* (Soldier)

Though there was no rule to select these various officials from a particular community, we know in what way the selection could have been made. The *Purohits* and the astrologers must have been from the Brahmin community, military officials from the fighting community (*Kshatriya*) and the treasury officers and clerks and accountants from

the business community (*Vaisya*). These have formed the social strata in India for hundreds of years. One has, therefore, to admit, inspite of efforts to prove the to contrary, that the caste system, as known in the North, prevailed in the South. And this was known to Tolkappiar, one of the earliest *Sangam* writers.

TABLE 4

SOCIAL ORANIZATION

NORTH INDIA *C.* 500 B. C.—1000 A. D.	SOUTH INDIA *C.* 100 A.D.—1000 A.D.
A. Four Main *Varṇas* (Castes) (1) *Brahmaṇa* (2) *Kshatriya* (3) *Vaiśya* (4) *Śudra*	A. Four Main Castes (1) *Andanar* (Brahmaṇa) (2) *Araśar* (King) (3) *Vaiśyar* (Merchant) (4) *Veḷālar* (Warrior and Agriculturist)
B. Fourfold Classification of Marriage	B. Fourfold Classification of Marriage, made by *Maraiyor* (Brahmans)

In other respects also the king and his court as well as the army were not much different from what one knows of these institutions in the North. For instance, we are told that the warriors before going into battle drank toddy.

The land revenue was supposed to be one-sixth of the produce of the land which is prescribed by Manu, Whether this was an after-thought of later writers or not, this is what we get in *Sangam* literature—the text and the commentaries.

The word for pledge is called *Pāyam* which is so far known to be Sanskrit, but quite likely Tamil and Sanskrit have derived it from some common source.

As far as trade is concerned, the South naturally exported those articles of trade which were easily available there and in return got things from the Roman world. But these were not fundamentally different. All over India Roman wine, women, and gold were welcome, but these were in much greater evidence in the Tamil region and the West Coast because direct trade had been established between these areas and Arabia, Egypt and Rome.

These facts were so far known only from literature. Now archaeology is providing very interesting evidence in sculpture, architecture, even small, teracotta finds and lastly through the discovery of amphorae. And we are told in the *Puram*, one of the *Sangam* classics (an anthology), the kings preferred to drink the thin clear foreign wine, while they gave the thick and delicious stirred drink to the guests. And in this connection, an interesting custom is cited. To enjoy this spirituous drink better, a garland of ginger bits was prepared and this was strung with flowers which they wore. A sip from the toddy bowl and a bite at the ginger bit alternated to the great pleasure of the party.

It is surprising that cremation is regarded as the most usual practice for disposing of the dead when we have sufficient archaeological evidence to say that burial—above

ground or underground—was the preferred practice : for in the North cremation had become common much earlier than in the South and there are few traces of burial at the beginning of the Christian era.

When we turn to religion, we are surprised to find that among the gods worshipped were : Śiva, Murugan, Thirumal, Valiyon (Balarama) ; of these Indra not only was an Aryan god known in Vedic times but a god of the Indo-Europeans, mentioned as he is in the Boghazkuei inscriptions on the Syrio-Turkish border. Balarama again reminds one of the brother of Krishna and these are probably the gods of the North.

So taking all these important facts of Tamil administration and culture, we find that the South 2000 years ago was not fundamentally different from the North for "the Sanskrit language and literature were not unfamiliar to the Tamil even before the Christian era." What one should stress here is the genius of the Tamil language which had coined a large number of words for their equivalents in Sanskrit and very often Tamilised Sanskrit terms and expressions. In fact, while this was a feature in the early years of the Christian era, later the king and the people accepted Sanskrit as the Court language. And though later under the Cholas, Sanskrit lost this position, still through all these centuries inspite of several foreign onslaughts, it is the South which has been the home of Sanskrit culture and for which Indians of all shades of opinion and denominations will ever remain grateful to it.

One should note that in spite of the fact that Tamil was the common language of all the three kingdoms—Chera, Chola and Pandya—still they continually waged war among themselves, so that language alone is not a cementing force in India.

More than one language, one religion, one culture, what a country requires for nationality or national unity is the desire to be one in spite of all odds—an idea which England alone of all the countries in the world has maintained all these centuries and which we have not been doing as all our history before 1857 and after 1947 shows.

INDIA'S LANGUAGE

When the question of the official language of India is hotly discussed, a review of what the official language or the language in law courts and administration was in various periods of India's past history would be of topical interest. For the purpose of this review, the long period of over 2000 years for which evidence is available may be divided into three broad periods: Hindu (*c.* 300 B. C.—1300 A. D.); Muslim (*c.* 1300 A.D. - 1700 A.D.) and British (*c.* 1760 A.D.—1947 A. D.)

During the first period, we are entirely dependent upon inscriptons. These are either exhortations to the people (as in the case of Aśokan edicts), or land grants to brahmanas or *prasatis* of kings and ministers, that is panegyrics, recounting in laudatory language the public deeds such as the building of a temple, dam or granary and its management but more often the conquests—real and imaginary. The inscriptions are carved on rocks, pillars, stone slabs and copper plates. As a rule, they bear the king's seal or signature and often the date when the work was recorded, either after a particular era then current or the regional year of the king's accession to the throne. Unlike other literary compositions, these inscriptions faithfully portray the happenings in the king's court, though this cannot always be said of the various conquests so grandiloquently sung in many an inscription.

Aśokan Edicts

The earliest inscriptions (barring the few pictographs on seals from Mohenjodaro, etc.) that we have, are the Mahasthan Inscription from North Bengal and the Edicts of Aśoka, all belonging to the 3rd century B C. and to the Maurya dynasty, which ruled a greater part of India from Pataliputra (Patna) in Magadha (Bihar).

The Aśokan edicts are found almost all over India. Whether written in Brahmi or Kharosthi (a Central Asian script developed as a result of the contact with the Aramaic of Iran) for Edicts from north-west India, the language of the Edicts is Prakrit with slight regional differences. Certainly, Prakrit could not have been the language all over India, particularly in Sind, Saurashtra, Andhra and Mysore. What Aśoka did was that a draft of the Edicts was prepared at Pataliputra and sent out to different parts of India, irrespective of the fact whether it was the southern or the eastern corner of his far-flung empire. An exception, however, had to be made as has very recently come to light, in the case of the Indo-Greek principalities, located in what is today Afghanistan. Here the Edicts carved on a rock, just outside Kandahar are to be found in a bilingual script, viz. Greek and Aramaic.

For some six centuries after Aśoka, there was no king who ruled over such a vast area as did the Mauryan emperor. The country was divided into small and large kingdoms. Still the interesting thing is that the rulers of these kingdoms took pride in writing their donations and war records in the then current Prakrit, but gradually switched over to Sanskrit. Where exactly the beginning was made, it is difficult to say. But in 150 A.D. King Rudradaman ruling from Ujjain recorded the reconstruction of the dam of the lake Sudarsana of Junagadh in Saurashtra in excellent Sanskrit verse. Sanskrit thus must have become a court language by this period in Western India (Sind, Gujarat and Malwa) though this Saka King's contemporaries in Maharashtra still stuck to Prakrit.

Sanskrit Takes Over

For some two centuries, inscriptions continued to be written practically all over India in Sanskrit and Prakrit. Sanskrit was firmly established in Pataliputra by 320 A.D. when the Gupta dynasty came to the throne. All their inscriptions as well as those of their contemporaries-even some of the petty kings in the forested regions of Madhya Pradesh-chose to inscribe their deeds in Sanskrit. At this distance of time this progress of Sanskrit and its victory over several local dialects and languages would appear remarkable , nay phenomenal. Two examples would show that the spread of Sanskrit was not so fast. It reached Bengal only in the fifth century, and slightly later Andhra, Mysore and Karnataka and Tamil Nadu Madras, as the inscriptions of the Guptas, the Chalukyas and the Pallavas testify. For more than three centuries, Sanskrit held undisputeds way all over India. Not only the genealogical portion and the description of the king's exploits but in the grant portions even the names of villages and towns were sanskritised.

Faint stirrings of the rise or the undercurrent of Kannada and Telugu are first heard in the inscriptions of the Chalukyas of Badami and their collateral branch in Andhra. The names of a number of villages are not sanskritised as in the north, but are mentioned in their original form which is near to old Kannada and Telugu. However, till the very end of their rule (*c.* 750 A. D.), Sanskrit enjoyed the privilege of the court language.

It was Sanskrit again which became the language of communication and the spread first of Buddhism and then Hinduism to Central Asia, and to the whole of South East Asia, including China and Japan. Of course, in this process its original form and diction often got changed or diluted. Hence it is called "*Hybrid Sanskrit*".

We can also learn a lesson from the script. Not only Sanskrit but Sanskrit written in Brahmi script, with its few regional variations served as a unifying factor for a number of centuries.

Further South

Slightly further south, the Pallavas shared their whole-hearted preference to Sanskrit. Besides Sanskrit, they also favoured Telugu and Tamil, thus recognising the claims of the

regional languages in their official transactions. The lead given by the Later Pallavas was taken up by their successors, the Cholas, first hesitatingly, but soon fully. The illustrious Rajaraja I initiated in 985 A.D the practice of prefixing to his records a set of historical introduction in Tamil. Formerly this used to be in Sanskrit. But it must be said to their credit that bilingualism was not given up. A few records are both in Tamil and Sanskrit, whilst in purely Kannada and Telugu-speaking areas, these languages were employed.

The story in Kerala is similar. Here the earliest Malayalam inscriptions are dated to 900 A.D. In the rest of India, the story was slightly different, and later we shall briefly point out the reasons for this difference.

During the century and a half (320 A.D.—470 A.D.) of Gupta rule in the north, a kind of cultural unity had been created. This is best visible today in the extant literature, art and architecture. This unity was badly shaken when the Hunas, Gurjjaras and other people from Central Asia entered India in various ways. Though many of these were absorbed, in the mass of the Indian population, still these people did leave their impression upon the indigenous culture (laws, language, literature, dress art, etc.).

The exact nature of this influence is not yet determined, but one fact is clear. The inscriptions of all the dynasties such as the Gurjara-Pratiharas, Paramaras, Chāhamānas; Chalukyas and Gāhadvālas of Northern and Central India from the 7th century onward contain an increasing number of non-Sanskritic names of people and places, though the major portions of the inscriptions are still written in fine chaste Sanskrit. This feature definitely indicates that though probably the king and his immediate courtiers spoke and understood Sanskrit, the masses did not. So the portion which affected the latter most was greatly influenced by the various regional languages.

Emergence of Regional Languages

Thus by the 10th-11th century, we can witness the emergence of proto-Hindi, Gujarati, Marathi, Kannada, Telugu and Tamil languages in inscriptions. In distant Bengal, the story was slightly different. It received Sanskrit late and retained it till the end of the Hindu rule as the records of the Palas, Varmans and Senas testify. Though, here too, a few indigenous words and expressions have been detected in the names of places.

An interesting development must be noticed. The later Yadavas who ruled over parts of Maharashtra, Andhra and Mysore (Karnataka) were multilingual. In their court, Sanskrit, Marathi and Kannada and possibly Telugu all were used as needed. For we find that the grant portion of their inscriptions in Maharashtra is in proto-Marathi while the script is Devanagari. However, those records addressed to the Kannadigas are in late Southern Brahmi and in proto-Kannada.

The seeds of medieval Indian States were thus sown in about the 7th century.

Some of these later comprised or corresponded what are today continguous linguistic areas. The emphasis at that time was not so much on regionalism or linguism as on dynastic pride, which cut across linguistic barriers. This did lead to a remarkable growth in regional cultures in several ways, the most notable being in literature and in art and architecture. But it is often forgotten that this was achieved at the expense of larger national interests.

The concept of nationalism, of course, was absent not only in India, but everywhere else. This had very disastrous consequences as our history tells us. We have created such a condition once again after nearly a millennium. The same old struggle between the centripetal and centrifugal forces is witnessed. A thousand years ago it was conscious, now it is conscious and that is the pity. We refuse to heed the lessons of history.

URDU AND PERSIAN

During the Muslim rule, depending upon the original nationality of the various invaders, first Arabic, then Turkish (for a brief period only) and then Persian became the language of administration with varying use of regional languages including Sanskrit. In a wider context, the interaction of these languages gave rise to Urdu or Hindustani in the North and Dakhani in the Deccan.

In Gujarat a mixed or hybrid Sanskrit had come into existence as early as the 12th–13th century A.D. and continued to survive until the 17th century as the *Lekhapaddhati*—a collection of treaties, court orders, sale deeds and revenue matters—undoubtedly shows. Probably because of this continuous tradition of the use of Sanskrit as late as the 15th Century Mahmud Begada of Gujarat and a few other Muslim Kings thought it necessary or took pride in recording their exploits in beautiful Sanskrit verse. (A long *prasati* of the former carved on stone is preserved in the Prince of Wales Museum, Bombay). The same thing was done by a Gond king of Mandla, Madhya Pradesh, two centuries later.

In one way or another, Persian was adopted as a court language by Muslim and Hindu kings alike. From this pedestal, it was slowly removed by English. For well nigh 150 years it has dominated the Indian sub-continent.

Even during the British period, Urdu remained the language of courts and administration in the north. That was the languauge for communication between the administration and the masses. Indeed even today it is largely Urdu written in the Devanagari script and it is being gradually Hindized.

If the official languages are plotted on a graph over a period of 2000 years, it will be found that first Prakrit (*c.* 300 B.C.—100 A.D.), then Sanskrit (*c.* 100 A.D.—700 A.D.) and then Sanskrit with an inscreasing use of regional languages (*c.*700 A.D.—1200 A.D.) were the principal languages used in courts and administration as evidenced by inscriptional usage. Then came Arabic, Persian and English. The last is still with us. Can it be forcibly ousted ?

A brief consideration of the conditions and circumstances under which Prakrit, Sanskrit, the various vernaculars and Arabic then Persian and English became the languages of administration, would show that in each case the conditions were not always the same.

Aśoka chose a form of Parkrit to record his edicts, because this was the language which was best known to his Court, not necessarily because it was known all over or even in a greater part of India. Thus its use may be attributed to political domination. But the same cannot be said of the subsequent introduction of Sanskrit. For a thousand years and more, it was already in the land and developed a rich literature which could express any idea with great ease. Men took pride in calling, themselves, "*samskrita*", that is "civilized" in modern parlance. It was this thought which made all the foreign dynasties—the Sakas and others—adopt Sanskrit as the language of administration.

When the Guptas came to the throne in 320 A.D. Sanskrit had already been established and they found little difficulty} (we feel ?) in making it a Court language, and during the subsequent period it spread in the nooks and corners of India until its progress was checked by new emergent forces within India and by the invading forces from without. Behind the introduction of Arabic and Persian there was nothing but political domination. The same can be said about English. But it was so imperceptible, so gradual that the conditions soon changed when an Indian realised that to call himself "civilized" he must learn English. Meanwhile, unlike previous periods in our history, English has continued to flourish outside India and become an international language. It is against these odds that Hindi, a would-be-national language has to fight.

Reorganisation of India into linguistic States and the encouragement of regional languages and the attempts to make Hindi a State language, however justified theoretically and advocated by such eminent and saintly personalities as Mahatma Gandhi and Sri Aurobindo, have in effect simultaneously released centripetal and centrifugal forces, while the erstwhile cementing force is being deliberately eroded. A clash is, therefore, inevitable.

History teaches us that only in two ways does a language acquire a national status. If State enforcement fails, then that language has to grow and win the hearts and minds of the nation as did Sanskrit two thousand years ago.

What shall we do then ? The problem has been accentuated by educationists telling us that our children have to study a number of languages, and therefore the study of the classical languages has been removed from the curriculum. Now English has also gone or is going in the North, whereas in the South they have done away with Hindi. Perhaps the same thing will happen in Bengal.

The educationists, point of view, however sound, is not realistic. It does not take into consideration our present and future needs. For our national unity, we have to build a link language. Elsewhere—Switzerland and Czechoslovakia—for instance where

multilingual nationalities exist, people have to learn more than two languages. Scholars there also learn English.

It is, therefore, earnestly desirable that all responsible persons at the helm of Universities and State Departments should not, in season and out, deprecate the study of English or Sanskrit. *What we have to tell our students is nothing but hard work.* This alone will make them scholars and good citizens, and pave the way *ultimately* for the unity of India. It is this unity which will lead us to success at home, and earn respect in international field. This could be most easily Hindustani and not Hindi. Just look at the language of the various cinema films. For our higher knowledge not only English, but a knowledge of Russian, besides German and French has become necessary as I can say from the wonderful discoveries the Russians have made in archaeology. In addition to these, Sanskrit will always remain the fountain-head of all our past knowledge and Culture. It is no use pampering our children. If they have to carry the burden, it is due to our past mistakes, our internecine wars which alone made it possible for foreigners to conquer us.

THE COW IN HISTORY

To allow or not to allow cow slaughter has literally become the 'burning' problem of the day. A brief historical review will show that cow slaughter has been with us from times immemorial.

Even during historical times, in what is called the 'Hindu Period' of Indian history, there never was a total ban on the slaughter of cows or any other animal, and that even when rulers like Aśoka and Kumarapala were the champions of *ahimsa* (non-killing).

The ban on cow slaughter is indeed of comparatively recent growth, mostly as a reaction against Islam rather than genuine, real love and reverence for the cow.

Ever since Man has been on this earth, the cow or ox has been one of the most common sources of man's food. Throughout the Pleistocene, that is a geological period ranging from about a hundred thousand years to ten thousand years, bones of the cow/ox have been discovered more frequently and at a large number of places in the river and other deposits than of any other animal. Often these bones have been associated with the stone tools made by man.

Some ten years ago, my colleague, Dr. Z. D. Ansari, and I happened to discover an almost complete skeleton of a wild ox, with stone tools embedded in the skull of the ox at Kalegaon, District Ahmednagar, on the Godavari.[1] From the type of the animal and the tools, both can be confidently placed to about twenty thousand years ago. Recently, the remains of an ox have been discovered in the old bed of the Mula river near Rahuri, and dated by C-14 method to about 40,000 years ago, whereas on the Narmada these have been found at a large number of place since the last century.

Preference for Beef

It may be said that the man who hunted the wild ox/cow was a barbarian and naturally lived on animals which he could get very easily. Not so. Even after man became civilized and even during the times when the cow and ox wealth (*pasudhana*), these bovine animals served in all possible ways ; as milch-cows, as transport and draught animals and also as food ; and this continued during the time when Man began to learn to grow his own food. That is from some 3,000 B.C. to *C.* 700 B.C., Man in India, as elsewhere in the world, continued to prefer beef to all other forms of animal diet.

1, Sankalia, H.D., Deo, S,B. and Ansari, Z,D. Poona, 1960.
From History to Prehistory at Nevasa,

This has been amply proved by all the excavations in India carried out since 1921 and of which we have fairly accurate records of animal bones found during the excavations. The oldest so far known in India is the Indus Civilization. This had spread throughout Sind, Punjab, most of Uttar Pradesh, northern Rajasthan, Kutch, Saurashtra and coastal Gujarat.

Everywhere in the excavations,[1] bones of the cow or ox have been most numerous, although we also know that in this civilization the bull was most artistically and realistically portrayed on the so-called seals and also sculptured in the round and perhaps worshipped.

Kitchen Evidence

The excavations, it should be pointed out here (to avoid deliberate misunderstanding by scholars otherwise interested), were different from excavations by the P.W.D. Archaeological excavations pertain to past habitations (towns, cities, villages or small settlements) and are very often of kitchens or kitchen refuse. Thus the things recovered from a kitchen refuse give a fairly accurate idea of the food-habits of the people. Again, the excavations at Mohenjodaro, Harappa, Lothal and Kalibangan and at Navdatoli were extensive, and are truly representative of the life of the people at that time.

Further, from a study of the bones, it is possible to say whether the animals were wild or domesticated, and slaughtered when young or old. Bhola Nath has identified a large number of bones of young humpless bull/cow from the excavations at Maski,[2] Andhra Pradesh. These bones range from *C.* 1500 B.C. The bones of young animals have also been noticed at Hastinapura and elsewhere.

Although one cannot distinguish between the bones of the cow and the ox, the zoologist or palaeontologist is able to say whether the bones belong to the cow/ox or to the buffalo.[3] The technical names for the two respective species are *Bos Indicus* and *Bos Bubalis* Linn. The experts in India and outside who have identified the bones from Indian sites have left no doubt that the bones of oxen or cows have been found from the houses where these were slaughtered for food.

The same was true of the other contemporary and later cultures which we have been able to discover during the last 20 years. Whether it be in Uttar Pradesh[4] or

1. B. Prasad, '*Animal Remains from Harappa*,' MASI, No. 51, (Delhi, 1936); Bhola Nath, 'Animal Remains from Rangpur', *AI*, No. 18 and 19 (1962-63), pp. 153-54; Sewell. R.B.S. and Guha B.S. in Marshall, *Mohenjo-daro and the Indus Civilization*, Vol. II (London 1931).
2. *AI*, No. 13 (1957), p. 125.
3. Bhola Nath, 'Animals of Prehistoric India, *Records of the Indian Museum*, Vol. 59 for December 1961 (1966), pp. 335-67.
4. It may be of interest to add some details. Even a limited exposure of the houses of this period at Hastinapura yielded 73 bones of cow/ox. And almost all these bones are either charred or bear cut marks. Two or three bones are of a young one. Thus, one has to conclude that these animals were slaughtered for food; cf. *AI*, Nos. 10 and 11, pp. 111-112.

Rajasthan,[1] Gujarat or Madhya Pradesh,[2] Maharashtra[3] or Karnataka, Andhra or Tamil Nadu, most prolific are the bones of *Bos Indicus*, that is the domesticated Indian ox/cow.

Thus, from about 3,000 B.C. to at least 700 B.C. Man depended upon the cow and the ox for his food, although as mentioned previously, this also formed the main source of his wealth. This has been described very vividly in the *Mahabharata* and the *Ramayana* as well as in various other Puranas and the Vedas.

Country-wide Practice

In this connection, it is pertinent to note that the bearers of the Painted Grey Ware Culture whose remains have been found throughout Uttar Pradesh, upto the Nepal Tarai and in Rajasthan also loved to eat beef. Large quantities of animal bones have been found in the early layers at Hastinapura, the home of the Pandavas and Kauravas, and according to one view, these are the people who belonged to one of the Aryan groups, probably the last one, and dated to about 1000 B.C.

This provides additional proof to what we are told in the *Rig veda* and all later Vedic literature. This evidence has been discussed by Mahamahopadhaya P.V. Kane.[4]

From this it is clear that although the cow was venerated and regarded as a divinity, still, throughout this period (*C.* 1500 B.C.), the cow was killed on several

1. The excavations at Ahar, near Udaipur, Rajasthan were on a large scale, and a number of houses along with *chulahs* were uncovered. These have also yielded bones of cow/ox both from the historical and prehistoric periods (*C.* 1800 B.C.—200 A.D.). Based on the Ms. report by Dr (Mrs.) Shah. Excavations at Maski, Tekkalkota, Sangana kallu and Hallur in Andhra-Karnataka have also given bones of cow/ox in large quantities. Cf. *AI*, No. 13 (1957) p. 125 for Maski. The rest based on Ms. Reports (Since published.) Bones recovered from the excavations at Nagara, near Cambay, by the M.S. University of Baroda have bee studied by Dr (Mrs.) Shah. On her authority it can be said that cows/oxen were eaten by the inhabitants of ancient Cambay right from the 4th-5th century B.C. upto almost the 12th century A.D. Evidence of a similar nature is available from Hastinapura. Here bones of cow/ox have been found from later periods (Periods III, IV, V, 400 B.C.—1200 A.D.) as well.
2. The excavations at Navdatoli in 1953-54 as as well in 1957-59 have yielded considerable number of bones of ox/cow, along with those of the pig. And these, in spite of the fact that the inhabitants produced several foodgrains—wheat, rice, gram, sesamum, linseed and peas. cf. Sankalia, H.D., Subbarao, B and Deo, S.B., *The Excavations at Maheshwar and Navdatoli*, Poona and Baroda, 1958, p, 256 and Ms. copy of the 1957-59 excavations by Dr (Mrs.) Shah of Baroda.
3. The small excavations at Nasik also yielded bones of ox, pig, deer from the layers of the early historical Period, as well as later periods. cf. Sankalia, H. D. and Deo. S.B., *Report on the Excavations at Nasik and Jorwe*, Deccan College, Poona, 1955, p. 142. At Nevasa District Ahmednagar, Maharashtra, bones of domestic ox are numerous in the layers of the historical period. cf. Sankalia, H.D., 1960. *op. cit.*, Poona. 1960, pp. 532-36.
4. Kane, P.V. *History of Dharma Sastra*, Vol. II, pp. 772-776.

occasions and particularly in (i) *Sraddhas*, (ii) for a distinguished guest in *Madhuparka*, and (iii) in the *Astika Sraddha*.

This account might be brought up to the beginning of the Christian era by citing Panini.[1] In his famous *Sutras* a guest is called *Goghna*, 'one for whom a cow was killed'. As a great Pune Sanskritist told me (after my article was published in *The Times of India*) that this term cannot be explained in any other way except taking it literally.

It may be argued that the cows might have been killed in sacrifices, etc., but otherwise they were held immune and not slaughtered. To this the reply might be given in the words of Nachiketas' father.[2] The problem of the old, milkless, uneconomic cows was ever present, as it is today. While milch-cows should not be killed, the old ones had to be. Hence to Nachiketas' question, 'To whom will you give cows as these, cows which have drunk their last water, eaten their last grass, have given last milk and will breed no more?' The father replied, 'To death do I give'. This is the meaning one has to derive from this otherwise philosophical text.

Inscriptions

Excavations of numerous earlier historical sites reveal a similar story. Cattle were eaten in the early centuries of the Christian era as before. Unfortunately, the subsequent history cannot be documented archaeologically, for the bones from the top layers of any site have hitherto not been collected carefully and studied. So we have to fall back upon another type of archaeological evidence, viz. inscriptions.

The inscriptions ranging over a period of some 1600 years (*C.* 300 B.C.—1300 A.D.) reveal an interesting development about the attitude to cows and Brahmanas and sectarian deities and in a way confirm what little we know from archaeology.

The earliest epigraphs are the edicts of Asoka carved on rocks and pillars throughout the length and breadth of India, and on the north-west frontier at Kandahar. In these the King makes a very significant admission. He tells us : 'Formerly numerous animals were killed in the king's kitchen. Now only two peacocks and one deer are killed, and this deer too not daily.'[3] From this it might be argued that cows were not slaughtered. But let it be remembered that the ban on non-killing relates to the king's own way of life, but not to the whole of the capital or to his empire.

Thus, for nearly 300 years after the Buddha and Mahavira, the two greatest preachers of *ahimsa*, flesh-eating had flourished in India, and we can legitimately infer that the cow/ox were not spared. It was Aśoka's zeal and State patronage that must have helped the spread of *ahimsa*. But it must be emphasised it was not a promulgation of a ban on killing, but a gentle persuasion, and a precept practised by the ruler himself.

1. *Paniniya Sutra*, III, IV, 73, *Dasagoghnau Sampradane*.
2. Shri Krishna Prem, *The Yoga of the Kathopanishad*.
3. Sircar, D. C. *Select Inscriptions bearing on Indian History and Civilization*, Vol. I, p. 17, First Rock Edict at Girnar.

From the second century A.D. onwards the inscriptions frequently mention that the king looked after the welfare of the cows and Brahmanas, whereas one record of Budhagupta.[1] (A.D. 484-85) ends thus : 'Let prosperity attend all the subjects, headed by the cows and the Brahmanas.' Another record specifically says that the guilt of violating the grant made by the king to a Buddhist shrine and *bhikshus* is 'as great as slaughtering of a cow or a Brahmana'. Four centuries later an inscription of Rashtrakuta Amoghavarsha I (A.D. 866) raised the number of cows and Brahmanas to one thousand and that too at Varanasi.[2] Evidently, the old *Dharmasastra* and *Smriti* injunctions against the wanton destruction of cows and Brahmanas were not enough.

Behind the Injunction

From such references, protagonists of a ban on cow-slaughter might argue that cow-slaughter was non-existent in India during this period. On the contrary, reading behind the words, this continuous injunction, century after century, only underlines the fact that cow slaughter in some form or other, mostly of barren cows, or cows otherwise useless, must have continued and some sections of the people must have also been eating the animal. This is also proved by subsequent history.

The reference in the *Uttararamacharita* to a slaughtering of a 'poor, tawny calf' when the sages Vasistha and others arrived, either echoes the old Vedic practice or is an example of what was happening in the 7th century. Anyway, Bhavabhuti had no qualms in using this old method of hospitality and his audience also must have appreciated it as a known and accepted method of hospitality.[3]

Chinese Travellers

Before we turn to the closing phase of the Hindu period, a reference must be made to the accounts of the Chinese travellers, Fa-hien, Yuan Chwang and I-Tsing who give glimpses of India and Indian culture between the fifth and the seventh century A.D. These Buddhist pilgrims refer to several taboos on food in India, such as non-eating of onions and garlic, but there is no reference to non-eating of beef. Both Yuan Chwang and I-Tsing, on the other hand, cite the Buddhist practice which allowed the eating of three kinds of meat, obtained without destroying the animals intentionally. According to the examples cited by Yuan Chwang, these would include beef.

While I-Tsing merely mentions the 'three pure kinds of flesh' viz., 'unseen, unheard, unsuspected',[4] Yuan Chwang discusses at some length the different practices prevalent in his times and earlier among the Hinayana and Mahayana Buddhists. He mentions how some of 'Buddha's disciples begged for beef and mutton and asking to

1. *CII*, Vol. IV, p. 89.
2. *Epi. Ind.*, Vol. VI, p. 107.
3. *Uttaramacharita of* Bhavabhuti, Introduction *Misravishkambha* to Act IV.
4. Takakusu, J. (Tr.), *A Record of the Buddhist Religion* as practised in India and the Malay Archipelago (A.D. 671-695), Oxford , (1896), p. 59.

have animals killed for them'; how this led Buddha to prescribe the kind of flesh his disciples should eat. Yuan Chwang also cites cases of Mahayanists who allowed the use of animal food of certain kinds, and these included calves, geese and deer.[1]

Here then is a living picture of a religion which preached *ahimsa*, but for practical purposes made several exceptions.

Thus, salughter of animals for food including that of the cow, had continued in India. With a view to lessening it, if not preventing it completely. King Kumarapala of Gujarat in the 12th century had to issue a proclamation banning animal slaughter. This *amarighoshana*, as it is called in the contemporary records, followed when the king, though a Hindu, actively patronized Jainism. However, it was not a total ban. Wisely, the animal slaughter was prevented only on three days, the 8th, 11th and 14th of each fortnight. Further, it is interesting to note how the punishment of violating this order was laid down. The officers of the King were fined one *dramma* only, but others five *drammas*.[2]

Partial Prohibition

Thus, the prohibition was partial, and indeed provides a useful lesson to us after eight centuries. Even in a complete Hindu State, wedded to *ahimsa*, the king and his Jaina advisers could not think of a total prohibition for all times. Various animals, including the ox/cow must have been slaughtered for 24 days in a month !

If any additional evidence is required, I may cite the story from *Uttara Adhyana Sutra*—an early Jain text of the fourth century before Christ. Here there is a reference to a story of Arishtanemi who was the younger brother of Vasudeva. He was going to marry the Princess of Mathura, Rajimati. When he approached the palace of the bride, he found in one corner animals (cows, etc.) kept ready for slaughter. Now this reference could not have been made by a writer of the 3-4th century B.C. if this was not in actual practice among Kshatriyas at that time.

The most interesting thing is that this story has been sculptured in great detail in the 12th century Jaina temple of Neminatha at Mount Abu.[3] Thus there is both archaeological and literary evidence to show that cow slaughter was in existence.

It is only in medieval times, after the 12th century, that the commentaries on the *Smritis* prohibited *go-vadha*, and eating of meat on other occasions, and other Vedic practices as things prohibited in the Kaliyuga (*Kali-Varjya*).

1. Rhys Davids, Bushnell, Thomas Watters, *on Yuan Chwangs' Travels in India* (London, 1964), Vol. I, pp, 54-57.
2. *Epi. Ind.*, Vol. XI, p. 44, and Bhavanagar Prakrit and Sanskrlt Inscriptions, Kiradu and Ratanpur Stone Inscriptions, p. 205 and Sankalia, H. D., *Archaeology of Gujarat*, pp. 236-37; Dr D.R. Bhandarkar who edited the Kiradu Inscriptions thought the Brahmanas and others might have been eating flesh on the Sivaratri, etc. To prevent this, the ban was promulgated.
3. Sankalia, H.D., 'The Great Renunciation of Neminatha,' *IHQ.*, Vol, XVI, (1940), pp. 314-317.

However, this prohibition was not universal nor followed by all. As late as the 17th century, Nisvanatha,[1] a great logician wrote in favour of flesh-eating by Brahmanas in sacrifices, *sraddha*, *madhuparka*, in danger of life and when ordered by a Brahmana and charged those who argued for a total prohibition as Buddhists, and illogical (for they did many other things not liked by society).

A Summary

This brief survey about the position of the cow or the attitude to cow-slaughter shows that until the beginning of the Christian era the cow/ox were regularly slaughtered for food and for the sacrifice, etc., in spite of the preaching of *ahimsa* by Mahavira and the Buddha. Beef-eating, however, did decrease owing to these preachings, but never died out completely. Some of the Buddhists practised it even in the 7th century when Yuan Chwang visited India. This was also the case with the Hindus, though now the *Smritis* prohibited *go-vadha* as *Kalivarjya*, among other things. This prohibition was not and could not be universal as the restricted prohibition of non-killing ordered by Kumarapala in the 12th century proves.

Although after this, owing to the advent of the Muslims and as a reaction against their indiscriminate killing of cows, the attitude on *go-vadha* further stiffened, still the resentment against this attitude by a 17th century Hindu scholar undoubtedly proves, if any proof be necessary, how very impracticable and unreasonable prohibition of *go-vadha* was regarded even in Hindu society. The old and un-economic cow/ox had to be killed as the Upanishadic example illustrates.

What the cow/ox in India needs today is good treatment—wholesome food, and fodder and water, and freedom from exploitation by the Hindus at all levels. Their reverence for the cow is always superficial. This was noticed and recorded by the authors of the *Bhagavata Purana*[2] and the *Ramayana*[3] centuries ago and regarded as one of the symptoms of the *Kali Yuga* ! The *Kali Yuga* has increased in its intensity and so also the exploitation of the cow. It is against this exploitation that we must all strive, not for a blanket prohibition of *go-vadha*.

1. Kane, *op. cit*, Vol. III, p. 946, cites *Mansatava Viveka* of Visvanatha. *Sarasvati Bhavana Series*, Banaras, 1927, pp. 28-29.
2. *Bhagavata Purana*, I, 16-17.
3. *Ramayana*, II, 14, 15, Verses 22-23 and Critical Edition, Baroda, II, 68-75, 21-22. For this reference I am thankful to Dr N. M. Sen.

18

ANTIQUITY OF MODERN DWARKA OR DWARKA IN LITERATURE AND ARCHAEOLOGY

THE location and antiquity of Dwarka[1] have been discussed by scholars now for nearly a century. Pargiter was perhaps the first to refer to this problem, though incidentally, in his translation of the *Mārkaṇḍeya Purana*.[2] Then, as usual, other Puranas and the *Mahābhārata* were ransacked and three places in Saurashtra were sought to be identified with the city of Dvaraka, which the Yadavas under the leadership of Krishna are believed to have founded, when they fled from Mathura. The three places are :

(1) Modern Dwarka, in ancient Okhamandala or the present district of Jamnagar.

(2) Junagadh, or ancient Girinagara.

(3) Mula-Dwarka, a small place—an island—about 22 miles (35.4 km) from Prabhas Patan, on the south-west coast of Saurashtra, or alternatively some place on this coast, up to Porbandar.[3]

Since the literary evidence has been cited sometimes exhaustively as late as 1945, it is not proposed to go over it once again, but the salient points are here discussed.

The claims of the present Dwarka were rather dismissed in a cavalier fashion by Altekar,[4] when he concluded that there were no references to it in inscriptions or literature before 1000 A.D. and that it had not suffered at all from Muslim vandalism, though he accepted the tradition about the ancient sea-sunk city of Dvaraka and said that it should be at least as old as 3rd century B.C. Bhattasali[5] and Durgashankar Shastri[6] (in Gujarati) and after them Karmarkar[7] (in Marathi) discussed the relevance of the epic and Puranic references, and pointed out that the *Mahābhārata* references were of two types. Those in the Adi and Sabha Parvas referred to a Dvaraka near the hill Raivataka, and no reference at all was made to the city being near the sea, or its later submersion by natural calamity. It was in the Musala Parva for the first time that Dvaraka's foundation in or near the sea and the later tragedy was first alluded to.

1. As spelt in the *Bom. Gaz.*, Vol. VIII, Kathiawar, p. 587. The correct transliteration would be 'Dvārakā'.
2. Translated with notes in Bibliotheca Indica (Calcutta, 1904), p. 289, n.
3. Burgess, *Report on the Antiquities of Kathiawad and Kachh*, London, 1876, p. 13.
4. 'Ancient Towns and Cities in Gujarat' published in *Ind. Ant.*, Vol. 54 (1925), p. 25, as a supplement.
5. *IHQ*, X, pp. 541-50 ; also *JUB*, Vol. III.
6. *Aitināsik Samshodhan*, Gujarat Sahitya Parishad, Parishad Series No. 1. Bharatiya Vidya Bhavan, (1941), pp. 59-64.
7. *Navbhārat*, February 1961.

The same view seems to have been held by the Puranas : the *Vayu* and the *Vishnu* agreeing with the Adi and Sabha, and the *Bhāgavata*, *Harivamśa*, and others following the Musala.

These and some other scholars, therefore, thought that the Adi referred to an earlier and truer tradition existing prior to the 2nd century B.C., whereas the Musala and other Puranas had in view a much later tradition.

According to this stratification in the Puranic tradition, they identified Davaraka near the Raivataka hill with Junagadh or the ancient Girinagara. The question of Dvaraka in the later references was not discussed.

Soon after, Law brought together the references in early Buddhist and Jaina literature but made no attempt to identify or locate it.

Pusalkar reviewing the entire evidence pointed out that though the *Mahābhārata* and the Puranic evidence was divergent, still the identification of Dvaraka with Girinagara was not free from difficulties. In the first place, it was against the persistent tradition of Dvaraka being near the sea and drowned by it, and that the area near the present Junagadh could never be this place because it is some 96.5 Km away from the sea.

To this we may add the fact that it has so far not yielded anything older than third century B.C. But while we say this it must not be forgotten that there must be some reason—either geographical, political, or commercial (that is strategical) or traditional why Aśoka thought of transcribing his Edicts near Girnar. It is not impossible that the place was old and therefore he chose it as his capital in Saurashtra. If this is so, then the region around Junagadh deserves a careful search. Some prehistoric mounds might be lurking in the jungles around the hills. Of course, the existence of a prehistoric site at Junagadh would not necessarily prove the location of Krishna's Dvaraka there.

So the claims of ancient Girinagara for being regarded as the site of Dvaraka remain unproved.

Mula-Dwarka[1] is in the same boat. No hills are nearby, nor do we know of any prehistoric mounds there, though here the case is not so bad. For about 3.2 Km from modern Prabhas or Somnath, there are extensive deposits of a Chalcolithic culture along the banks of the Hiranya river. This site would be the Adya Prabhāsa of the *Skanda Purāna*.[2] And so the remains of Yadava's Dvaraka might not be far off, it might be argued. At the moment nothing can be said for this view, for we are totally in the dark. The same is true of any likely site on the south-west of Saurashtra.

1. *Bom. Gaz., op. cit.*, p. 552. It is on a small mound. Nearby is the port of Kodinar; also Shastri, Hathibhai, *Proceedings of the Oriental Congress*, Vol. VII, pp. 1171-72.
2. According to the information kindly supplied by Shri M. A. Dhaky.

We then come to the remaining alternative, viz. Dwarka in Okhamandal. Its case has been very well argued by Pusalkar.[1] He showed that as far as the description of the location of Dvaraka in the Musala Parva of the *Mahābhārata*, the *Bhāgavata* and particularly the *Harivamśa* go, as well as the existence of temples of other gods is concerned and the occurrence of certain shells marked with a lotus on them and referred to in the *Mahābhārata* is concerned, the present Dwarka fitted the position admirably. He also pointed out, after Pargiter, some 60 years before him, that the so-called Raivataka hill near which Dvaraka was situated might be the Barda hills and not Girnar. These are about 88.5 Km south-east of Dwarka.

Only one point Pusalkar could not satisfactorily answer and that was the likely priority of references in the Adi and Sabha Parvas over the later ones, and the complete absence of references to Dwarka in inscriptions, particularly of Gujarat--Saurashtra.

Both these objections can be very well met. First, Pusalkar seems to have missed the significance of the reference to Dvaraka in the *Ghata Jātaka*, first cited by Law.[2] This *Jātaka*[3] gives an interesting history of Vasudeva (Krishna) and his nine brothers, who are said to have conquered a number of States and ultimately settled at Dvaraka, on one side of which was a hill, and on the other the sea.

Now the *Jatakas* are believed to contain very ancient traditions, and their composition in their present form is not later than the 3rd century B.C. So here is an independent source, other than the epic and Puranic, which tells us that Krishna's Dvaraka was on the sea. On the strength of this Buddhist tradition it is possible to argue that Musala Parva in the *Mahābhārata* and other Puranas are handing down this tradition, which need not be necessarily late.

Again, an inscription of A.D. 574 belonging to one Gārulaka Simhāditya,[4] found nearly a 100 years ago at Palitana in Saurashtra, tells us that his father Varahadasa (II) was like Śrī Krishna of unqenchable valour and had conquered the lord of Dvaraka. And it has been shown by me elsewhere[5] that Varahadasa must have ruled somewhere near Bhatia which is only 40 Km from Dwarka.

More than any other evidence—epic, Puranic, Buddhist or Jaina which cannot be exactly dated—this one epigraphical allusion informs us that at least some centuries before the sixth century there existed the tradition that Krishna had founded Dvaraka and this was situated on the sea; on the site of modern Dwarka. Whatever might be said in favour of other sites, considering all the literary evidence, we can say with greater confidence than Pusalkar that the present Dwarka was regarded as the site of Krishna's

1. Pusalkar, A. D., 'Dvārakā', *B. C. Law Volume*, I (Calcutta 1945), pp. 218-24.
2. Law, Bimala Charan, *India as Described in Early Texts of Buddhism and Jainism*, (London, 1941), pp. 85, 102, 132, 167, 215, 239.
3. V. Fausboll (Ed). *The Jātaka* (London, 1887), Vol. IV, pp. 82-85,
4. *Epi. Ind*,, Vol. XI, p. 18, ll.11-12,
5. Sankalia, H.D, Dvāraka in VIth Century Epigraph, *JGRS*, XXV, pp. 293-94.

Dvaraka at least from the beginning of the Christian era, if not some centuries before it. But this antiquity should be proved achaeologically and Pusalkar had the foresight to suggest it, though earlier Bhattasali had bemoaned the fact that nothing had been done by the archaeologists (he meant the Archaeological Survey of India) to prove the antiquity of traditional sites like Hastinapura, Dvaraka and Ayodhya.

Unfortunately nothing was done to follow up this very intelligent suggestion of Dr Pusalkar for nearly twenty years and more. A few years ago one Professor Abhyankar from Nasik tried the aerial survey, and claimed that he had noticed the remains of the buried city. I always wondered how one could be so sure without actually handling the remains ! These, if at all there, could be of several periods, as we later found. The question was again brought to me when I visited Dwarka in October 1962. Here I met Dr Jayantilal Thaker, who put before me the evidence that he had gathered from his observations of the ruined houses, dug-up roads and drains. This evidence consisted of silver Gupta coins, Red Polished Ware and some other pottery of unknown fabric and age. However, the writer was convinced that if the Red Polished Ware as well as the silver coins of the Guptas had been really found at this place, then the site must go back at least to 2nd century A.D. Accordingly an excavation was conducted here jointly with the Department of Archaeology, Gujarat State.

Before the results of our excavation are described it is necessary to see in some detail what the *Harivamśa* has to say about Dvaraka, and then compare this description with the topography of modern Dwarka. For this will facilitate the final identification.

With regard to the foundation of Dvaraka, some Puranas describe it in very general terms, but the *Harivamśa*, which is in a sense an epilogue to the more famous epic, the *Mahābhārata*, gives it in greater details.

The *Harivamśa* definitely states that the site selected for Dvarkā was in Kuśasthali (the latter is also called at places a *nagarī* (town or city ?) ; that it was situated on the sea, and the land was full of cocanut and other trees, and animals like cows, buffaloes, elephants, pigs and deer. Further the hill of Raivataka was not very far off. Giving some idea of the land surface it is said to be copper-red in colour, and covered with thorny bush and stones. Twice we are told that the land available for the future city was insufficient, and therefore, some land had to be reclaimed from the sea (literally, the sea retreated on Krishna's request).

This done, the celestial architect Viśvakarma built a city in no time, laid on roads, parks, palaces and houses. Special provision was also made for an assembly hall, temples or palaces for Krishna himself and his family and the gods Agni, Varuna and Indra. A fort wall with ditches was also constructed round the principal buildings. The former was provided with four or more gates, hence the city was called "Dvaravati".

Though it would appear that this Dvaravati was a brand new city, there are statements which imply that a small city or village of this name was already existing

before the Yadavas, under Krishna, chose it for their second home. Of course, such statements which look anachronistic or confusing are bound to occur in a work which purports to narrate a past event in future tone.

However, the *Bhāgavata* (another Purana) seems to be more clear on this point. It says that Revata, son of Anarta, had built Kuśasthali in the sea. Though, thus the name of Dvāraka does not appear, one can be sure that there was an earlier habitation here known as Kusaśthalī (literally a place having *kuśa* grass).

Leaving aside for a moment the question that there are two places which claim to be the site of ancient Dvaraka, let us now turn to modern Dwarka. The latter is situated on the western coast of Saurashtra just where the land juts out more prominently into the sea than anywhere else on the peninsula. Physiographically and even culturally, it is different from the rest of Saurashtra. An area of over 777 sq Km known as Okhamandala is practically an island and has been formed by sedimentary rocks full of marine fossils. For the most part, it is flat, almost like a table top (and thus an ideal ground for motor driving or even racing), with occasional low hillocks made of fine clay or limestone. To the north-east of Dwarka these form an undulating semi-circle. The low-lying areas are marshy and difficult to traverse during or soon after the rains.

The vegetation is scant. Scrubby accacia and thorny cactus (*thur*) seem to be native and supply fuel to the people even now. But where there is good land, and sweet water available, as around Variaval, a few Km north of Dwarka, luxuriant trees and orchards can be developed. This land is said once to be full of herbs, deer (possibly this is implied by the place-name '*Kurangi*', now a railway station), wild pigs and cattle. Now only the latter two remain, the former having been almost exterminated.

Vaghers are believed to be the aboriginal people, though, looking to their physiognomy, tall with straight nose, clear cut features, and darkish, these seem to have come from Sind, and emigrated from Central Asia in prehistoric times. Other people in smaller numbers are Rabaris, Charans, Brahmanas—the Guggalis and Abotis—Lohanas and Baniyas. Thus there is abundant evidence everywhere that the land was once under the sea, and various groups of people have at one time or another come from outside. An imaginative writer could well say that it was reclaimed from the sea. This too in a natural way, by simply the sea retreating (and not by filling up as was done at Bombay).

Secondly, copper-red rock and the resulting sands and clay can be easily seen at numerous places in and around Dwarka.

But the one reason which seems to have drawn early settlers here was a harbour, which like Bombay, does not lie on the open sea on the west, but in a creek formed by the so-called Gomati river on the east. It is now silted up, but until a few years ago, large ships could come in at high tide. And H.H. the late Sayajirao Gaekwad of Baroda

had built a dock along the Gomati and a ghat (landing place) on the opposite side with huge stone pillars to facilitate tying up of the ships.

Then here where the Gomati meets the sea were built on the ancient rock surface the temples of Indra, Varuna, Surya-Narayana and a little on the interior the famous temple of Krishna, as lord of Dvaraka—"Dvaraka-dhiśa". This is nearly 54.8 m from the ground level and can be seen from miles around. This as well as the other temples, as they stand today, are admittedly of a later date, but it is very likely that they stand on the ruins of ancient temples, probably of identical deities. This time should not be later than the 7th century, as indicated by the architectural style of the temples, and the associated pottery which we recovered from our excavations at Suvarna Tirtha and Pindara. The existence of these places of pilgrimage and particularly of Śankhoddhāra or what is now called Bet Dwarka, gives a vivid and specific clue for its identification, viz. the occurrence of shells with lotus (*Padma*) engraved on them. Now these occur only here and nowhere else.

Two topographical features of the present Dwarka admirably fit in with those given in the *Harivamśa* and the *Bhagwata*, whatever the claims of other places like Mula Dwarka to be regarded as the ancient Dvaravati of Krishna. Here is a flat, rocky land, which was formerly under the sea, and has copper-red sand and clay and is full of thorny bushes. *Kuśa* grass also grew once in abundance. But above all it was a natural harbour which though out of use now, probably the main attraction to new comers, whether arriving here as refugees, invaders or traders. And that is what the name 'Dvaraka' or 'Dvaravati' means, 'a gateway, or one having gates—to the west or to the land within. And probably because it was port, or a prominent place on the coast, that the author of the *Periplus*, a Greek work of the first century A.D., mentions the island as Barake in the Gulf of Kutch.

Dwarka has thus all the natural advantages to be chosen as a safe refuge place by a people in peril, whether they be Yadavas or anybody else. But how should one determine this period of the earliest colonization at Dwarka, and the vicissitudes through which it had passed ? The present city can be divided into two or three parts. The oldest is clustered around the temple of Krishna called "Dvarakadhiśa". The latter dominates the scene, being a prominent landmark for miles around, situated as it is on the highest part of the city and also because the temple's *śikhara* (tower) is unusually tall, being built of several storeyes. Round this 'ancient city' is a fort. Outside are situated other temples, a few right on the sea-shore, and the modern houses, school, library, the railway station and the A.C.C. factory within a radius of 3.2 Km to the north-east, and the light-house on the west.

The oldest Dwarka then lies within an area of less than a square mile (2.5 sq Km) That it is situated on a rising ground should be obvious, even to a casual visitor. But is this a natural eminence—a rock or artifical mound made of debris of several earlier habitations ? An archaeologist, however experienced, could never say anything. For there is not an inch of open ground which he could examine.

To our rescue came Dr Jayantilal Thaker, a resident of Dwarka. During his long stay here and a careful and intelligent study of the topography of the area, as well as observation of the foundation of houses and laying of roads and digging of wells, he had noted remains of earlier buried houses and that indestructible indicator of past cultures and civilizations pottory—besides, of course, a few coins, bangles, bones, shells and sand. What an archaeologist does or has to do before undertaking an excavation Dr Thaker had done. He had collected evidence, which is normally available, prior to an excavation, from explorations and topographical study and ancient traditions and legends.

From this Dr Thaker had come to the conclusion that the most ancient Dvaraka of Krishna's time lay under or adjacent to the temple of Dvarakadhiśa. This was later submerged in the sea. Centuries later other Dwarkas rose up over this sand-covered city. A very legitimate inference which can only be checked by a careful digging, removal of layer after layer of all the later buildings and reaching the virgin rock-bed over which might lie the remains of the earliest habitation, covered no doubt by a layer of sand. From Dr Thaker's calculation (which we later checked by noting the contours with the present sea level) we had to penetrate an accumulation of nearly 10.6 m/12. 1 m to reach our objective.

Normally, this should not be difficult to attempt in an open area. Here it was different. The area was heavily congested. A house had to be acquired, then demolished and then a trench, indeed a large pit or sondage, cut through, a most difficult and unromantic operation when it is realized that there are houses around built with dry masonry and rarely plastered with cement or lime. Thus we had not only to safeguard our safety and that of our diggers, but of the houses and their habitants including two cows which were tethered in the passage between the houses.

Since there was no other way to prove the antiquity of Dwarka, this hazardous excavation was undertaken, jointly with the Department of Archaeology, Gujarat State. Its Director and Assistant Director, Dr D. L. Sharma and Shri J. M. Nanavati, were most co-operative and helped us in various ways. They not only acquired the house, but helped us in demolishing it and later their Conservation Assistant Shri Anjaria assisted in the conservation of the surrounding houses. Dr Thaker was of inestimable help all the time. Later when the problem of structural engineering such as the sinking of a wooden cabin into the sand to protect the sides from collapsing arose, the advice of Shri Manibhai Thaker and Shri Pandya, Retired Deputy Engineer, saw us through a most anxious time. Shri Ladva, Mamlatdar of the town, also assisted in times of need. To all these friends, my colleagues and myself are greatful.

Though the over-all planning and execution of the project was done by the writer, much of the actual work was carried out by his two lieutenants, Dr Z. D. Ansari and M.S. Mate. They were ably assisted by the Shri P. R. Kulkarni and later on by two of our pupils, Shri N. M. John and Miss Katy Frenchman.

The house we demolished is situated immediately to the north-west of the main temple, being separated from it by a small lane. The actual digging area at our disposal was 8×6 metres (about 25 ft×20 ft). This was fully dug out upto a depth of 3.7m but when sand was struck, only half the area, about. 3×3m was chosen for deep digging, as a measure of safety. The latter from a depth of about 6m was further restricted to an area of 1.8×1.8m as a series of wooden shorings had to be erected into this narrow space to prevent the sandy walls from collapsing. To us accustomed to an open air digging, this was a novel experience. For not only was it extermely uncomfortable to work into the narrow pit, but there was the constant fear of the sides caving in, if for some reason the upright planks and the cross beams gave way under the weight of the sand and the overlying stone structures. This fear was not misplaced, because in the closing stage, when the third shoring was being inserted at a depth of 7.3m one of the sides developed a huge crack just where the sand layer began. This necessitated the immediate closure of the work. It could be later resumed with the strenghening of the shorings, but not without considerable misgivings in our mind.

Within the narrow space, we could reach a depth of 11.5m that is almost the surface of the rock and the sea today.

This deep vertical excavation revealed the remains of six habitations or six Dvarakas. The characteristic features of each as indicated by our limited evidence were as follows :

The foundation of the first Dvaraka might be placed at a period, just *before or around* the beginning of the Christian era, but not much earlier. Though no idea of the houses, etc. at this time can be had, there is no doubt that the habitants knew the use of wood, iron and a fine pottery. Among the last we notice several fabrics : very coarse, fine and painted, all mostly having a reddish surface. The one with a fine red slip or coating has a deep black core made of well levigated clay and fairly well-baked. Though no full shapes were available, one can visualize such shapes as small and large globular vessels with narrow or wide necks, having thick rim-band on the outside, which was deeply cut, thus showing a fine overhang with sharp edges. Then there were bowls and storage jars with thick sides. In addition to the beautiful red slipped and painted narrow-necked vessels, there were vessels with extremely thin sides. Since only fragments of this are found, no idea of their shapes can be formed.

A large proportion of the potsherds is rolled, that is, they show the effect of water action, having been tossed about in the sea and lying buried in the sand for 2000 years. This proportion goes on increasing as we touch deeper and deeper levels. Two curious facts, however, deserve notice. Some sherds have escaped this damage completely, even though recovered from a depth of 9.4 m. The other is that a few sherds from the same level still preserve the soot on the inner side after all this time ! At the moment, we are unable to account for this marked difference in the pottery from identical levels, for no pits or other disturbances are noticeable in the sandy medium in which we were digging and secondly, no strata, if any, were available for inspection.

The 'first Dvaraka' lies buried under nearly 6.m of sand, obviously because of the encroachment of the sea. But there is archeological evidence from our excavations at Suvarna Tirtha, about 4.8 Km to the north and Pindara, about 24.1 Km due east,of Dwarka, that this was a local phenomenon confined to a small area of not more than a 1.6 Km or so in circumference. For at these latter sites the inhabitants using identical pottery continued to live. This by the way can be gleaned from a careful study of the *Harivamsa* and other accounts as well.

Whether the sea continued to heap on sand for years together or whether the phenomenon'was sudden and of short duration', cannot be easily determined. No less than 6m of sand has been deposited and if the physical condition of a large number of potsherds found practically throughout this thick deposit is any guide, then we might infer that the process went on for sometime, and that is why a large proportion of the potsherds is 'rolled'.

Whatever it is, when the sandbar of about 6m in height had accumulated, attempts seem to have been made to settle on it. For remains of two fragmentary walls made of local sandstone were found in our pit. These rested right on a bedding of reddish sandy foundation, a practice which is current even today.

The evidence of 'second Dvaraka' might appear flimsy. However, the pottery associated with this phase indicates a momentous change. Along with the potsherds of the earlier phase, we now notice fragments of the Roman or Mediterranean amphorae and another characteristic pottery which because of its uniform red core and lustrous smooth surface is called the Red Polished Ware (RPW).

Not only the fabric but the shapes are extremely specialized and include some bowls and sprinklers—a vessel having a small vertical neck with a narrow opening, and a spout, similarly made but on the side. While the amphorae were definitely imported with the wine (and women, the latter having been irretrievably lost), the Red Polished Ware was an excellent copy of the famous Arretine and other wares of the Roman Empire. Saurashtra has so far produced the largest quantity aud the best type of Red Polished Ware. And it had also been shown by the late Dr Subbarao of the Baroda University that specialized kilns for manufacturing such exteremely well-baked pottery with Manglore tile-like texture, still continued to survive in Saurashtra.

Even this 'second Dvaraka' was covered by the sea, burying it under nearly 1.8 m of sand. Thus when the next inhabitants came, the area around the present temple had grown into a small mound, some 7.3 m higher than the surrounding plain.

Before turning to the next phase, a reference should be made to 'a lingering tradition, recorded in the *Gazetteer of the Bombay Presidency*, vol. VIII, Kathiawar (1884), p. 588. According to this legend, 'the old town of Dwarka was swallowed up by the ocean' during the reign of one Sukkur Belim, a Syrian adventurer. This again, according to the tradition, had taken place after the country had been reconquered by the Kalas, a local people in the middle of the 2nd century A.D. Since the country was

under the possession of the Chavadas in the sixth century, the rule of Sukkur Belim would fall between the 2nd and the 6th centuries. It is at this time that the Old Dvarka was submerged in the sea, according to the local tradition, and a fine confirmation of it has been found in the excavation.

The 'third Dvaraka' had to be built on a sandy mound. Hence the foundation of houses had to be secured by a stone filling, over which a regular platform of stones was laid. Besides this constructional feature, it was interesting to find in the debris and walls of this period, mouldings and finials of temples with small spires (*śikharas*) in the neighbourhood. A small rectangular shrine of stone with a tapering roof, surmounted by a finial lies most inharmoniously and unsymmetrically in the *maṇḍapa* (main hall) of present temple today. Architecturally it seems to be the earliest shrine at Dwarka, and along with similar shrines on the western seaboard of Saurashtra, should be placed in the 5th-7th century A.D. Thus the beginning of our 'third Dvaraka' should be placed in this period. Dvaraka as a religious place connected with Vishnu's various incarnations, and particularly Śrī Krishna, seems to have gained in prominence at this time, due no doubt to the great popularizing of the Puranas, under the Guptas.

From the 8th-9th century Dwarka's progress was continuous, though it is said to have suffered seriously at the hands of the iconoclasts. A beautiful temple of the 12th-13th century stands disfigured on the shore. Similar destruction and damage must have been caused to the main temple, adjoining our site. But of this no evidence came forth from our dig. We only found houses built over the foundation of the earlier ones, and this no less than four to five times. Inhabitants of the houses after the 13th century introduced new cultural features—a drab coarse red and black pottery, but beautiful glass bangles, some polychrome. One large piece having a diameter of nearly three inches should belong to a hefty woman. As shown by me elsewhere and now being proved every year, the art of making such polychrome glass bangles as also glazed and celadon ware, was brought into India by Iranian Muslims in the 15th century. The occurrence of the glazed and celadon ware should be attributed to the same source, though it must be emphasized that certain glazed pottery might have an earlier existence as at Rangmahal in Rajasthan.

The occupants of the immediately succeeding period used fine and delicate articles of ivory, of which we recovered a few. They also possessed elaborately made terracotta toys. Just before the existing house was constructed some fifty years ago, a shop selling large conch-shells stood there, for in one place we unearthed no less than fifteen carefully kept conch-shells.

Within the space available, we had reached our objective, and showed that the site of present Dwarka is at least 2000 years old, its early inhabitants bearing some relationship with those in distant Rajasthan. For some of the pottery fabrics and shapes are identical with those unearthed by the Swedish Expendition in Bikaner. But what was, the sociological background of this Dvaraka and whether any still earlier remains exist

which can be ascribed to the epic Krishna, we cannot say, unless a much bigger excavation is made possible.

From our observation of the various places in and around Dwarka as also from the evidence of excavation one can definitely say that this is the Dvaraka mentioned in the Musala Parva of the *Mahābhārata*, the Dvarakamahātmya of the *Skandapurana*, other Puranas and the *Ghata Jātaka*. In particular, one can say that the Dvaraka described in such a great detail as a sacred *tirtha* by the *Harivamśa*[1] probably came into existence after the second submergence in the sea of two earlier Dvarakas, because it gives very minute description of so many temples, and this could have been possible only by a writer who had probably visited Dvaraka and seen the temples. But the writer was quite sure that Dvaraka which he was describing was twice submerged into the sea and therefore the earlier Dvaraka, he thought, belonged to Śrī Krishna. Of course, of this we have no positive evidence excepting the fact that it is possible to say that the earliest Dvaraka was found at least in the 2nd—1st century B.C.—A.D. and of this we can say much more when in future there is a chance to excavate it on a much larger scale.

1. This was also the view of Durgashankar Shastri. But he placed the *Harivamśa* in the 1st-2nd century A.D., whereas we would place it in the 7th century.

THE UR (ORIGINAL) RĀMĀYAṆA OR ARCHAEOLOGY AND THE RĀMĀYAṆA

Since Weber[1] and Jacobi[2] a large number of works—articles and books—have appeared on the Ramayana. We have listed about 650 . Thanks to the late Professor G. H. Bhatt[3] and his colleagues and the support he received from the Oriental Institute at Baroda, we now have a Critical Edition of the Ramayana which but for the last fascicule of the Yuddhakanda and the entire Uttarakanda, is complete. Though there are many works dealing with this or that aspect of the Ramayana—language, polity, society—still there are very few which have utilized archaeological material critically. Occasionally, however, scholars have drawn attention to the descriptions of certain figures in the epic, and compared them with the sculptures, whereas one scholar has gone to the length of saying that archaeology in india has not progressed to the extent that it can be used to elucidate social and other problems raised by the Ramayana.[4] This view could have been regarded as true, some 30 years ago. But now with considerable stratigraphic digging all over India and Pakistan, and researches in the Stone Ages of India, we have succeeded in building up a rough time-table of cultures, say, from 200,000 years B.C. to 1200 A.D. From this period reliable written records—history—are available. Above all, we are able to provide an approximate time bracket for the Copper-Bronze Age and indicate, though not quite precisely, the time when the Iron Age began in India. We also have reliable milestones in the early historical period, such as the introdtction of the Graeco-Roman objects—tools, weapons, utensils, ornaments and art motifs, and wine into India.

It is against this background that an attempt has been made :

(1) to ascertain the nucleus of the original (Ur) Ramayana—its locale, the persons who participated in it, and the time (of the happening);

(2) the subsequent stages of development; and

1. Weber, A. "On the Rāmāyṇa", *Ind. Ant.*, I, 1872 and IV, 1875.
2. Jacobi, H., *Das Rāmāyaṇa*, Bonn, 1893.
3. Bhatt, G. H. (Ed.), *The Vālmīki Rāmāyaṇa*, The Bālakāṇḍa, Vol. I, Oriental Institute, Baroda, 1960.
4. Guruge, Anand, *The Society of the Rāmāyaṇa*. Saman Press, Ceylon 1960.

(3) the age of the present Ramayana, particularly the Critical Edition, prepared at Baroda.

The main conclusions are here summarized, with the minimum discussion of the evidence, since all this is fully dealt with in my forthcoming monograph.[1]

The Ramayana as presented in the Critical Edition belongs to the Early Iron Age.[2] This is amply proved by the repeated references to weapons of *kālāyasa*, *kārsnāyasa* and *ayasa*. And *ayasa* definitely means "iron" and not copper. Many of these weapons—various types of arrows, swords, other weapons, and even *astras* (weapons having a magical effect) can be shown to have emerged during the Indo-Greek and Kushano—Roman period, that is between 2nd century B C. and 2nd century A.D. The iron chest with eight wheels in which the bow of Rudra was kept and which Rama alone could wield and break and thus win Sita requires advanced iron technology.

This view is further corraborated by Sita's garments which are described uniformly as made of *kauśeya* (silk) and the signet ring of Rama. *Kauśeya*—Chinese silk—and the *nāmānkita angulīyaka* were unknown to India before this period. Not only these two items help to date the Ramayana archaeologically but point to a growth in the story. For, as in the *Sakuntla* of Kalidasa, Rama's ring plays an important part in providing the bonafides of Hanuman, as a messenger of Rama.

Originally Sita, like all other persons in the Ramayana must have worn garments of *kshauma* (linen) or fine cotton as interpreted by some scholars,[3] as these were the clothes given in marriage (as even the practice is today) by her father Janaka, But later for several reasons—to arouse the reader's (listener's) sympathy and pity, and to make Sita's aerial journey very conspicuous, the later poets substituted *kauśeya* for *kshauma*.

A study of the evolution of the finger-rings right from the earliest times (the Indus Civilization *c.* 2400 B.C.) upto the 4th—5th century A D. shows unmistakably that the finger-rings bearing names, that is signet rings, were introduced into India by the Indo-Greeks and became popular soon afterwards, though at Harappa we do get a finger-ring with a small bezel. Thus the ring episode could not bave been introduced into the Ramayana before the 2nd century B.C., though the probability is that it was introduced later, about the 4th—5th century A.D.

The occurrence of sculptural motifs like the Gaja Lakshmi (bathed by two elephants)[4] and the *vyomachara* (atlantes) on the *pushpaka vimāna* have to be similarly dated. The standing or sitting Gaja Lakshmi appears at Sanchi (2nd-1st century B.C),

1. Since published. *Rāmāyaṇa : Myth and Reality*, New Delhi 1973.
2. Soundara Rajan, K.V., "Sociological Vignettes from Sundarakāṇḍa of Rāmāyaṇa", *JMS*, Vol. LII, pp. 143-65.
3. Agrawala, V.S., *Harṣacarita—A Cultural Study* 1953, Patna (in Hindi), p. 77.
4. Jhala, G.C. (Ed.), *The Vālmīki Rāmāyaṇa*, The Sundarakāṇḍa, Oriental Institute, Baroda. Vol. V. 5.6.14.

though the earlier one is on a coin from Kauśambi, but the atlantes shown on the pillars at Nasik, Cave 3, belong to the Sātavāhana period.[1]

Careful study of the description of Lanka and Kishkinda shows that the poets have created imaginary cities, though this imagination was no doubt helped either by a sight or description of the cities existing in India in the beginning of the Christian era or later. However, it must be said that the poet or poets had never seen south India or any part of it, and much less Ceylon. Otherwise they could never have given such fanciful description of these two cities.

That the poets were unfamiliar with the life in south India (Maharashtra, Karnataka, Andhra, Tamil Nadu and Kerala) can also be inferred from the fact that only cremation and that too of a typically Aryan or Vedic type is vividly described (for instance that of Jatayu,[2] and Vālī,[3] whereas we now definitely know that the prevalent custom of disposing the dead in all these parts was burial—that too in a house in earthen pots or in a megalith. The later practice survived upto and during the early historical Period in Tamil Nadu, though perhaps it had disappeared further North.

There are frequent references to tall *gopuras* and *śikharas* and *vimanas* in the description of Ayodhya and Lanka. If these refer to those of temples, then we have no extant remains of *gopuras* and *śikharas* of a date earlier than the 4th-5th century A.D. and even these will be modest in size. Both the *gopuras* and *śikharas* begin to grow in size after this period and reach their first culmination in the 9th—10th century A.D, in south India, and the final culmination is reached in the 17th—18th century under the Nayakas of Madurai, when the latest *gopuras* in India were built. The probability, therefore, is that the reference to *gopuras and śikharas* in the Ramayana is to Buddhist *stupas* (though nowhere the *stupas* are mentioned but the *chaityas* are). This suggestion is made because the earliest well-dated reference to *gopuras* and *śikharas* is in the Hathigumpha Cave inscription of Kharavela (*c.* 2nd—1st century B.C.)[4]

The Bacchanalian scene[5] in the Bhāradvāja *āśrama* at the time of the reception of Bharata and his army,[6] with the three widowed mothers could with all reasonableness be assigned to a period when Roman wine and women had entered Indian life.

1. Sivaramamurti, C., *Sanskrit Literature and Art—Mirrors of Indian Culture*, MASI, No. 73. Delhi, pp. 3-6.
2. Divanji, P. C. (Ed.), *The Vālmīki Rāmāyaṇa*, Aranyakaṇḍa, Vol. III, Oriental Institute, Institute, Baroda, 3.64.27.
3. Mankad, D. R. (Ed.), *The Vālmīki Rāmāyaṇa*, Kişkindākāṇḍa, Oriental Institute, Baroda, 4.2.13-40.
4. Sircar, Dines Chandra, *Select Inscriptions bearing on Indian History and Civilization*, Vol. I, Calcutta, 1942, p. 209,
5. Vaidya, P. L. (Ed.), *The Vālmīki Rāmāyaṇa* Ayodhyākāṇḍa, *The Yuddhakāṇḍa*, Vol. II and Vol. VI, Oriental Institute, Baroda, 1967-69, 2.85, 11,-770.
6. Particularly notable are the sentiments of Bharata soldiers who were so happy with wine, women and meat that they said, "We shall not go to Ayodhyā, nor to the Daṇḍaka forest. Let Bharata be well and Rama be happy." 2.85.55. All these 2000 years the army life has not changed !

This was so far known from references in the *Periplus*[1] and Nakkirar, a Tamil poet but now the Roman amphorae (with wine) has turned up from practically all over India, and even from the Buddhist monastery at Devnimori[2] in northern Gujarat. And it is to this lavish use of wine that one may ascribe the scenes of revelry depicted in the railings of Nagarjunakonda and Mathura and the descriptions of the harem of Ravana and other inhabitants (Rakshasas) in Lankā.[3]

Lastely, the details of the *Pañchanga* (Indian calendar) given so often in the Ramayana and particularly the birth of Rama and other sons of Daśaratha which mention not only the *ritu* (season), *tithi* (lunar day), the *nakshatra*, but also the name of the month and the day of the week, show that the existing editions of the Ramayana are not earlier than 484 A.D., when we get the first epigraphical reference to all these details;[4] though it must be conceded that in the Critical Edition, the verses giving all these details are omitted from the constituted text and given in the footnotes.

Enough archaeological evidence is thus available to say that :

(I) The present editions of the Ramayana, including the Critical Edition, are not earlier than the 5th century A.D and in some cases they are considerably later.

(II) The author/authors of these Ramayanas betray no true knowledge of south India.

(III) The Lanka cannot be the island of Ceylon (though now renamed as Lanka) or any place in South East Asia.

(IV) The picture of life given in these Ramayanas is true of north India between the 1st-2nd centuries B.C.—and 5th century A.D.

What about the nucleus of the Ramayana and the original Lanka ?

There are clues in the Ramayana, which, if interpreted archacologically, geographically and botanically, enable us to say that the story or the various incidents could have taken place in the present Uttar Pradesh, Bihar, the Chota Nagpur plateau and the eastern Madhya Pradesh as early as 1500 B.C. but not earlier, though the probability is between 1500 B.C.—and 700 B.C. The reasons for this conculsion are very briefly as follows :

(I) The small but careful excavations at Kauśambi,[5] Pralhadpur,[6] Chirand, Sonpur, Mahisdal,[7] and Rajar Dhipi,[8] in U.P., Bihar and West Bengal respectively have revealed the existence of a settled way of life—people living in mud nd bamboo/wooden huts, eating rice as well as mutton, beef, pork and venison, and fish and manu-

1. Warmington, E.H., *The Commerce between the Roman Empire and India*, Cambridge, 1928, p. 265.
2. Mehta, R. N. and Chowdury, S.N., *The Excavation at Devnimori*, Baroda, 1966; *Rāmāyana*, (*Critical Edition*).
3. Jhala, 1966, *op. cit.*, 5.7; 8, 13, 15.
4. Sircar, 1942, *op. cit.*, p. 326.
5. Sharma, G.R., *The Excavations at Kauśāmbi (1957-59)*, Allahabad 1960.
6. *IAR, 1962-63; 1963-64*;
7. *Ibid., 1963-64.*
8. Das Gupta, P.C., *Exploring Bengal's Past*, Calcutta 1966.

facturing first stone tools and weapons and later those of copper and bronze, and burying the dead in houses—about *circa* 2000-1500 B.C.

(II) There existed a culture in all these areas when more advanced tools and weapons of copper/bronze—such as swords, harpoons and axes—were manufactured, as well as a fine, wheel made pottery, ordinarily red but, but at times painted in black.

Unfortunately, the exact context of these tools/weapons as well as the pottery is not available, so that no fuller idea of the life of the people who possessed these objects can be had.

(III) There is clear evidence at Mahisdal and Rajar Dhipi that these earlier cultures were destroyed/displaced by an iron-manufacturing people. The evidence from Chirand and Sonpur in Bihar is not conclusive, but a change from the copper to iron technology is clear. Probably similar evidence can be had when sites like Ayodhya and Mithila are dug. Here already surface search has yielded sherds of the Painted Grey Ware. And this characteristic pottery connects these sites with the chain of sites further westwards. If a speculation be permissible, then one may visualize in these few archaeological remains, the tribes and kings of various dynasties mentioned in the Vedic and Puranic literature who ruled in Kosala, Videha and Anga.

Though there are clues for a regular chronological and technological development, these have to be substantiated by larger horizontal excavations, which alone will tell us definitely who the authors of these three cultures were. Pending these, the inferences here made might hold good.

(IV) The so-called Rakshasas and Vanaras were the original inhabitants—*adivasis*—of the Chota Nagpur plateau, which is shared today by south Bihar, U.P., Orissa and Bengal. There are clear and unambiguous statements which call the vanaras and Rakshasas as forest dwellers, (*vanacharas*), the latter perhaps on a high rung of the ladder of culture.

Ravana was an ordinary human being with two arms and one head. There are explicit references to this fact even in the Critical Edition.[1]

(V) Lanka was situated in the Vindhyan forests and hills. In "Mundari the word Lanka means "distant", "very far away", "any distant country beyond the seas."[2] Further Dhur (ordinary)—Gonds are known as Ravana-*Vamsis*.[3] And they attach no opporbium to the name and fully accept it. Hiralal's location of the Godavari with a small stream of the same name, about 10 miles (16 Km) south of Chitrakuta removes a great source of confusion in reconstructing the itinerary of Rama.

Careful and very intelligent reading of the Kishkinda Kanda had already led

1. Divangi, 1963, *op. cit.*, 3.4.47; 3.49.34; 3.53.34 and Jhala, 1966, *op. cit.*, 5.18.13, 16 and 13.
2. Bhaduri, Manindra Bhusan, *A Mundari-English Dictionary*, Calcutta 1931, p. 102.
3. Iyer, T. Paramasiva, *Rāmāyaña and Lanka*, Parts I & II, Banglore City, 1940, p. 18.

Paramasiva Iyer to locate Lanka on Indrana Hill, about 12 Km east of Jabalpur in Madhya Pradesh. This evidence[1] is briefly as follows.

Suparśva, Sampatis' son, was waiting on the edge of a hill overlooking a lake (*sagara*). This is called the entrance to Mahendra hill (Mahendradvara). It was evening. Then came a dark or black person (*bhinnānjanachayopamah*)[2] carrying a very fair woman (*suryodayasamaprabha*) in his arms, and requested him to give him way (as Suparśva was guarding the narrow passage). The request was so courteously made that Suparśva had to yield. He later learnt that the black man was Ravana and the woman in his arms Sita ! Here then is the truth. Ravana is still held in esteem by the Mundas and other aboriginal tribes in eastern Madhya Pradesh.

To this identification of Lanka of Parameswar Iyer,[3] I would add very important botanical data.

Rama (and Lakshmana) invariably used the bow and the arrow, and occasionally the sword, but never any other weapons except the *astras* (with the help of *mantras*). But the Rakshasas, besides these weapons, fought with *Sala* trees, and so also the vanaras. In fact, these trees and stones were the main weapons of the vanaras. They never used the bow and the arrow or the sword. Their frequent use of the *Sala* tree not only shows their normal way of life, but their habitat. The *Sala* (*shorea robusta*) today grows in the Amarkantak plateau, Chota Nagpur and Assam, but not in Maharashtra, south India or Ceylon. Thus we can legitimately use this evidence for locating not only the habitat of the Rakshasas and Vanaras, but also Lanka, which previously was traced to this region.

One more evidence which would clinch the issue. After the rampage caused by Hanuman in Lanka, Indrajit (Ravana's eldest son) alone was able to subdue him with the help of *Brahmāstra*. This is an invisible weapon which works with the help of *mantras*. Poor Rakshasas could not grasp its strength and efficacy, and tried to secure Hanuman more firmly with ropes of (*śaṇa*) and strands of bark (*chira and valkala*) !

This is the only reference to *śaṇa*. *Śaṇa* ordinarily means a kind of hemp (*Cannabis Sativa* or *Cristolaria Juncea*, MW. 1048) but it might also stand for jute. If so, it would indicate in no uncertain way where we should search for the original Lanka. It will be no doubt in a region where *śaṇa* grows. This again takes us to Eastern India—the Chota Nagpur plateau. I have seen the small and large, red and yellow jute fields.

When the abode of the Vanaras and Rakshasas is thus located in the eastern Vindhyan forests we can well understand the argument of Rama[4] who when accused by Vali of wrongly or illegally killing him (Vali) when he was not a combatant. Rama

1. Mankad, *op. cit.*, 4.58, 13-52.
2. Variant readings are *nīlāmbudachayaprabhah* and *nīlāñjanachyopama*, *Cr. Ed.* 4,58.15 (p. 357).
3. Iyer, *op. cit.*
4. Mankad, *op. cit.*, 4.18, 6-39.

says, "All this land belongs to the Ikshavākus and it is my duty to punish the perpetrator of *adharma*," viz. the kidnapping of Sugriva's wife Ruma by Vali.

This land, south of the Ganga now falling in Chota Nagpur plateau and Madhya Pradesh, must have formed a part of Dakshina Kosala. We can thus visualize a compact geographical area where the scene (story) of the original Ramayaṇa took place. This would be ancient Videha, and the entire Kosala, corresponding to the modern States of Bihar, southern U.P. and eastern M.P. Though we have no archaeological evidence about the identity of the rulers of these States, these should be the traditional dynasties which historically at least can be placed here about the time of Buddha, 6th century B.C. It is on this framework reconstructed with the help of archaeology and an objective interpretation of Ramayana that a beginning can be made for determining the nucleus and locale of the original Ramayana.

ANTIQUITY OF THE NAME 'SRI LANKA'

The current controversy about the location of Lanka in the Ramayana has made a large number of readers wonder why the name of the island of Ceylon, which was known by this name for the last so many centuries, was changed to Sri Lanka and not simply Lanka ? Behind this change of names there is a history of more than two thousand years and two different traditions and usages.

The island in the Indian Ocean immediately south of the Indian landmass, was known to the Indians (as well as to the Greeks and the Chinese) as documented by Aśokan Edicts of the 3rd century B.C. as Tamraparni, meaning "copper red" (place). Later inscriptions from Nagarjunakonda tell us that pilgrims from this place as well as the King of Simhala had built a monastery and a shrine at Nagarjunakonda for Buddhist *biqkshus*. These names, Simhala and Tamraparni, alone are used by the Chinese pilgrims Fa-hien (5th century), Hiuen-Tsang and I-Tsiang (7th-8th century) in the records of their travels through India. Thus up to the 8th century, at least, the island was known in Indian documents as Simhala and Tamraparni (Greek Taprabone).

However, two centuries later, records, one from Bodhagaya, Bihar and the other from Dacca, Bangladesh, inform us for the first time that the island was also called Lanka. The record from Dacca (12th century) adds that its king was encouraged to subdue the *Rakshasas* of Lanka after invading the island. Thus, for the first time, in the 12th century A.D., we are told that the island was inhabited by *Rakshasas*.

This change of name, or the knowledge of the local name of the island, Lanka, is also attested to by two copper plate grants of the Kadambas and Silharas who ruled in Konkan in the 10th-12th century A.D. In these records these local rulers boast that they were "the undoubted lords of Lanka "which they had conquered without building a bridge and without the help of army of *vanaras*." But this Lanka was not the island of Lanka, but Goa. The Silahara king also claimed to belong to the family of "Simhala" meaning again Goa, and not the island of Ceylon.

These late and indirect references, whose significance was not realized by earlier writers, definitely tell us that by about the 10th century the island the in the Indian Ocean had come to be known as Lanka and Simhala and further, because of the spread of the Ramayana story a vague reference was made to its conquest by *vanaras*.

Now, we can definitely say when this story had spread. For up to the 7th-8th centuries the Western Chalukyas, who ruled over Maharashtra including Konkan called themselves only the Lord of the Western Oceans, and not of Lanka or Simhala. Incidentally, it can also be inferred that the word *Lanka* was applied to any island or a

solitary hilly place, and hence applied to Goa as well. That this was so, is proved by two other inscriptions of the 10th and 17th century from Andhra-Orissa; for they speak of "the lord of western Lanka" near Sonpur, on the Andhra-Orissa border, and Dandakaranya, near Bastar.

This is in brief of the documentary evidence from India proper between the 3rd century B.C. and 13th century A.D. As far as Ceylon is concerned, more than a thousand inscriptions all in *Pali* and early *Brahmi* script, ranging from the 3rd century B.C. to the 1st century A.D., discovered during the last fifty years in the island and published recently by Dr Parnavitana tell of a flourishing contact between the island and different parts of India. They inform us how our kings, princes, merchants and mariners from India flocked to the island to spread Buddhism there. These inscriptions give us a fine insight into the religious tendencies and gods these Buddhist converts had before they went to the island. But there is no hint of the Ramayana story in these inscriptions. Even the local name of the island, Lanka, does not occur.

That the local name of the island was Lanka and not Simhala is definitely proved by "*Dipavamsa*" and "*Mahavamsa*" the two Pali Chronicles from Ceylon dated approximately to the 3rd century B.C. and the 4th century A.D. respectively. These no doubt give a traditional history of the island and show that efforts were made to spread Buddhism in the land by Aryans from north India. The aboriginal inhabitants of the island are often called *yakshas*; at times a reference is made to Pulindas and Savaras—aboriginal tribes living in the hilly area of Ceylon and also found in Madhya Pradesh. But except for one reference to Ramagona (Gama ?) there is no reference to the Ramayana story.

Of course, the "*Mahavamsa*" gives a fanciful story how before Buddhism was introduced in the island by Aśoka's son Mahindra, one Vijaya, believed to be the son of a lioness, had invaded the island. This Vijaya, originally from Eastern India, had actually gone to Ceylon from Sopara (Surparaka) near Bombay. While there is indubitable evidence, and the persistent tradition of the island having been colonized by people from the Eastern and the Western coast of India, and certainly from called *Damilas* (Tamils) in early inscriptions, still there is no doubt that the original name of the island was Lanka. This is propably a *Mundari* word, as linguists tell us, meaning an island or a solitary place on a hill. It is in this sense that the Korkus in Baster still call Ravana's residence "*Lanka*" or "*Lankā*".

Anyway, Simhala or *Amra desa* are not local or indigenous names. And "Ceylon" which had come into use after the occupation of the island first by the Portuguese, then the Dutch and lastly the British was an anglicised version of Simhala. Hence all these names were given up by the Republic in preference for the name found in the most ancient records, namely Lanka. But because of its association with Ravana (for which there is little evidence) the word "Sri" was suffixed,

RISHABHA OR ĀDINĀTHA

Rishabha is the first *Jina*, the first *Tirthankara*. There are no early or contemporary works of his time which describe his life and times. The works, like the *Kalpasūtra* of Bhadrabahu and the *Mahāpurāna* (in Apabhramsa) by Pushpadanta are comparatively very late. These and other works are believed to hand down to us the ancient Jain tradition. How far truly they do it is a matter for research. We cannot say that the authors of these very late works do indeed portray the picture obtaining at the time of Adinatha. However, it is interesting to see what Bhadrabahu and Pushpadanta respectively imagine the condition of civilization at the time of Rishabha's birth.

Rishabha was the son of King Nabhi (Kulakara) and Queen Marudevi of Ayodhya. The *Kalpasūtra* tells us, "During his reign he taught, for the benefit of the people, the two sciences, of which writing is the first, arithmetic the most important and the knowledge of omens the last, the 64 accomplishments of women, the 100 arts, and the three occupations of men". Jacobi has tried to explain this statement as follows: "The arts, as those of the potter, blacksmith, painter, weaver and barber, each of which five principal arts is subdivided into twenty branches, are inventions and must be taught; while the occupations, agriculture, trade, etc., have everywhere developed as it were, of themselves."

What is exactly meant by the word 'taught' is now difficult to say. Does it mean that agriculture, pottery-making, weaving as well as reading and writing were unknown, and Rishabha was the first man on this earth to teach them to his fellowmen ? What the traditional interpretation is will be made clearer by a citation from Pushpadanta's *Mahāpurāna*. He says that before the time of King Nabhi there were *Kalpavrikshas*, (wish-fulfilling trees) so that people could get what they liked. But during Nabhi's reign, it appears, the *Kalpavrikshas* had disappeared. There was the first rainy season, but people did not know how to till, to collect grains, etc., and so they were starving. When this was the state of the people, Nabhi taught them to make earthen pots out of the temples of an elephant. He taught them to crush the grain with a pestle, to kindle fire and to cook. He explained them the method of drawing a thread out of cotton and weaving cloth.

These are the most important inventions which characterize our civilization, and differentiate it from a period when man was no better than a forest or steppe animal; collecting fruits and roots of trees and living on hunting; in short in a food gathering stage. If modern archaeology were to describe these stages of Man's culture, it would call

the era which Nabhi or his son Rishabha initiated as the era of Agriculture; the one which preceded would be the Stone Age period.

Bhadrabahu's and Pushpadanta's accounts, no doubt, contain obvious contradictions and anachronisms. What is remarkable is that both these writers could think of (or record a tradition describing such) a period in the evolution of civilization which as shown above is equivalent to the man's emergence from an early primitive life, which, as hitherto reconstructed from archaeological remains, was known as Stone Age.

Looking to the hoary past to which Nabhi and Rishabha both belong, according to the Jain and Brahmanic tradition, it is not impossible that they did indeed live at a time when Man was in a barbarous stage, and that he was raised to higher stage of living by Rishabha. He is, therefore, perhaps rightly hailed as the First Lord and Teacher, who bestowed civilization on man.

A UNIQUE IRON SPEAR-HEAD FROM TRIPURI, MADHYA PRADESH, INDIA

Tripuri is an ancient historic site, about 12.6 Km west of Jabalpur in Madhya Pradesh. At this place excavations were recently carried out by a Joint Universities (Baroda, Poona, and Sagar) Expedition, sponsored by the Madhya Pradesh Government. Excavations were made on three mounds known locally as Hathia Gadha. Though the mound is nearly 20 m high from the water-level of the stream which flows at its foot, the cultural debris alone rise to a height of 6.3 m or so. These debris, consisting of 13 layers, may be divided into four main historical periods extending from 6th century B.C. to the 5th century A.D.

While excavating the layers falling within the IV Period i.e., 4th-5th century A.D. a large number of iron objects, including spear and lance-heads were found. These spear-heads are of two types : (i) spear-or lance-heads with tangs, (ii) spear-or lance-heads with sockets. One of the large spear-heads, described in this article (pl. 42), is remarkable for two reasons. It has denticulated ribs on the socket, and these ribs are made of brass,[1] a metal which was not in common use in India at that time. Though the exact method or technique by which these brass ribs were fitted on to the socket, cannot be fully investigated (lest some damage be caused to the spear in the process); it appears that a hollow brass case with denticulated ribs and rings, together with a clasp, was first prepared. Further examination through a miscroscope by Dr. K. K. Hedge showed, that the denticulation was done by filing ; but whether this was done before fitting on the case to the socket or, after in was already on the socket, cannot be determined. This denticulation was then fitted on to the socket, and the clasp was rivetted to the iron blade; while the rings, in the front and back, securely held the socket.

Whatever may have been the exact technique of mounting such spear-heads with denticulated ribs, there is no doubt that such type of spear-heads are quite unique. No spear-head of this type have been found, and no mention has been made about them in published excavation reports or Museum catalogues.

These denticulated ribs[2] are not merely ornamental, because it is difficult, nay dangerous, to hold the socket; as the teeth are (still) very sharp, and a little care-

1. This was first suspected when Shri S. K. Kulkarni cleaned the spear-head on the field by keeping it in kerosene. Later this was confirmed by Dr. G. G. Majumdar who cleaned it further in our laboratory.

2. The denticulated ribs of the handle is comparable to the tor steel rods used in Reinforced Cement Concrete structures. These possess more tensile strength than the plain mild steel rounds—Ed.

lessness would hurt the hand. Inquiries (for the truth of which I cannot vouchsafe, having neither seen the weapon in use, nor having read any authoritative book about it) reveal that the denticulated socket increased the effectiveness of the spear in wounding the enemy, man or beast; for such a spear-head would go deep into the flesh, and when it was withdrawn, it would bring forth with it a lot of flesh and blood. Thus this unique spear-head was a formidable weapon of attack during the 5th century A.D. For, according to our stratigraphical evidence and associated objects, the spear-head belongs to this period.

The use of brass for domestic purposes or even for making images, was rather rare in India during this period of history.

MAHISMATI AND MAHESWAR

Scholars in the past have tried to identify Māhishmati mentioned in the Puranas either with Maheshwar, at present in the Nimad District on the northern bank of the Narmada, or with Omkar Māndhātā or Mandla. A very positive light on this question has been cast by the excavations at Maheshwar. This has been pointed out in the article here.

MAHESHWAR

Maheshwar (22°11′ N and 75°36′ E) is situated on the northern bank of the Narmada, about 80 Km due south of Indore. It is (and was) a taluka town of some importance in the Nimad (Nimar) district, under the Holkars of Indore.

NAVDATOLI

Almost exactly opposite on the southern bank lies the hamlet of Navdatoli (or Navdatodi—boatman's village),[1] a place of little significance now, except as providing a crossing from the hinterland. Some 4000 years ago, however, this place was perhaps in a more flourishing condition than its northerly neighbour. About the beginning of the Christian era it was nearly wiped off by a flood;[2] hence no trace of its existence seems to have been known to the then contemporary writers. Navdatodi has, therefore, no claims to literary antiquity.

TOPOGRAPHY

The town of Maheshwar extends for over 1·6 km from east to west along the Narmada, and less than 0·8 km in depth northwards, This longitudinal extension[3] is significant. It seems to have been necessitated by geography. For immediately behind, almost half the longitudinal extension of the town, towards its eastern end flows the Maheshwari river, running nearly north—south, suddenly turns eastwards, and cutting the city near the Jvalesvara temple, joins the Narmada.

Another *nala* on the opposite end marks the western limit of the town. Thus the Maheshwari river and its extension at the western side could have very well formed a moat (*prākarā*), and their junction with the Narmada would make it a complete island, or as Sanskrit dramatists would describe it, a (watery) girdle.

This 1·6 Km long area is dotted with high mounds and gullies, indicating a long man-made occupation and its erosion by nature. The present town is confined to the

1. It is spelt as Nauratori in Survey Sheet No. 46 N/SE.
2. This is indicated by a thin layer of river sand and gravel over the ruins of the *Stupa*.
3. This is true of Mandla as well.

centre, while the waterfront is adorned with a built-up *ghat* and magnificent temples. Most of the later are renovations or reconstructions over the debris of earlier temples of the medieval (10-13th century) and perhaps pre-medieval period. It was the Rani Ahalyabhai Holkar of Indore who thus revived the departed glory and sanctity of Maheshwar. The *Chhatri* and the temple built by the Holkar family dominate the scene and attract pilgrims and visitors from all over India.

Antiquity

Maheshwar is one of the few fortunate towns of India which have a well-attested history right from the modern up to the beginning of the Christian era.

Nineteenth Century

Leaving out the references by explorers in the 20th century, the first British Officer to visit Maheshwar seems to be Captain Dangerfield.[1] He calls it "Mhysir", and had noted large earthen vessels at the junction of the upper and lower beds in the high cliffs of the Narmada. He thought that these had been overwhelmed by a shower of earth or traditionally earthquake. Bose,[2] a geologist who went there nearly 60 years afterwards (1882), observed at the side of Mandalkho, two well-defined beds of unequal thickness: the upper about 6m and light-coloured, lower about 13·7 m and brownish, and both separated by a very hard dark coloured clay.[3] He was curious as to the purpose of the six ring-wells and some earthen pots. Bose had also noted the two inscriptions in the temples of Kaleśvara and Matangeśvara, dated 1622 and 1623, which identify Maheshwar with Māhishmati.

Cunningham and his assistants who began an archaeological survey in 1861 do not seem to have visited Maheshwar.

Muslim Period

During the four Centuries of Muslim rule, we know of only two specific mentions of Maheshwar: the first, when it was captured by Ahmad Shah[4] in 17-2-1492, and the other when Akbar passed through it in 1600-1601.[5] Being in the interior, the Arab and Italian travellers like Marco Polo do not appear to have gone there.

Chineses Traveller

It is also doubtful whether Yuan Chwang's Mo-hissu-fa-lo-pu-lo, identified with Maheśvarapura, is our Maheshwar[6] or Mandla of Cunningham or some third place.

1. Captain Dangerfield, "Geology of Malwa" in Sir John Malcom, *A Memory of Central India including Malwa* (London, 1832), Vol. II, p. 325, However, Captain Wilford, seem to be the first person to refer to it and identify it with Chauli-Maheshwar. Wilford, *Asiatic Researches* in Transactions of the Society instituted in Bengal, Vol. 9 (1809) p. 105.
2. Bose, P.N., "Note on earthen pots found in the alluvium at Mahesvara (Mahesar)", *JASB*, 1882, Vol. 51, Pt. 1, pp. 226-29.
3. These layers correspond respectively to the man and nature-made debris and were noticed by us in our very first visit.
4. *CHI*, III, p. 298.
5. The exact date is given by Diskalkar, 67.
6. Watters, Thomas, *On Yuan Chwang's Travels in India*, Vol. II, p. 251.

For, from the itinerary, it does not appear that our Maheshwar is meant, though the Chinese traveller did find there a large number of Deva temples of the Pāśupatas.

MAHESHWAR IN LITERATURE

Early Jaina works[1] like *Āvaśyaka-sūtra-chūrṇi* and *Ācārāṅga sūtra-chūrṇi* speak of one Maheśa, Maheśvara, Māheśvara, Māheśvarapura or Māheśvarī. According to the former work, the town of Māheśvarī was situated in Dakshinapatha, and was founded by Prince Achala, a son of Prajāpati, the ruler of Potanapura. The latter work describes the gardens and festive occasions at Māheśvarī, when wine was freely taken by citizens.

Anyone who has visited present Maheshwar will readily appreciate the remarks on the gardens there. The area around the present town is very fertile and even now boasts of a few mango groves and orchards. Whereas the existence of Jainism at the place is attested to by ruins of ancient Jain temples, one right on the Narmada, now almost submerged in river silt, and known as Bhartrihari Gupha.

That the town was definitely known as Maheśvara in the 8th century is also proved by a story in *Paumaharia*,[2] a work of the latter half of the ninth century. It calls Sahasrakīraṇa (Sahāsrārjuna of the *Bhāgavata*, IX, 5) as the Parameśvara of Maheśvarapura. Thus this is the first definite description of Maheshwar under discussion and though there is no mention of Māhishmatī, we shall show later that both are identical.

MAHABHARATA

The *Mahābhārata*[3] also mentions a Maheśvarapura, and a Maheśvarapada as a *tirtha*, while according to one reading, the Maheśvarasthana from which Rudra destroyed Tripura is mentioned in the Dronaparvan.[4]

PURANAS

Now a few Puranas, like the *Matsya*[5] and the *Padma*[6] refer to a sacred place (*tirtha*), called Jaleśvara (or Jālesvara) on the Narmada, and while narrating its origin they speak of Maheśvarasthana on the same river, as the place from which Rudra thought of destroying Tripura. The *Padma* further associates Svaha,[7] the wife of Agni, with Maheśvarapura. Since the same Purana at another place[8] says that Rudra

1. Sharma, Dashartha, "Mahiṣmati is Maheshwer" in *JOIB*, Vol. X (1960-61), pp. 306-07 and Sandesara, B.L., *Jaina Āgamasāhitya mā Gujarat*, Gujarat Vidyasabha, Ahmedabad, 1952, p. 143.
2. *Ibid.*, and Bhayani, Harivaliabh, *Paumacariya of Kavirāja Svayambhudeva*, Bharatiya Vidya Bhavan, 1960.
3. Sorensen, *Index to the Names in the Mahābhārata*, II, p. 457, citing III, (Bombay Ed.), 84, 8107, and k097.
4. Ch. 200 quoted in Vachaspatya Nagari Ed., Vol. 3373, cited by Dikshit, S. K., *Proceedings*, Indian History Congress, Calcutta, 1939, p. 141. footnote 24.
5. *Matsyapurana* (Anandasrama Ed.,) p. 31. ff.
6. *Padmapurana* (Anandasrama Ed.,), Vol. I, p. 19 ff, Adhyayas 14-15.
7. *Ibid.*, *Sṛṣṭikhaṇḍa* (V), Adhyaya 17, śloka 206.
8. *Ibid.*, Uttarakhanda (VI), Adhyaya 115, *śloka* 3-13.

destroyed Tripura from Māhishmati, Dikshit[1] argues that he is justified in equating Maheshwar with Māhishmati, as Rudra and Agni are the common factors in all these stories and at Maheshwar there is a temple of Jāleśvara. He would further place the antiquity of Maheśvarapura[2]-Māhishmati[3]—at least to the 1st century B.C. as both are mentioned, though separately and at different places, in the *Mahābhārata*.

Identification

Now Diskalkar,[4] Pandya,[5] Dikshit,[6] Karandikar,[7] and much earlier, Wilford,[8] have tried to identify Maheshwar with Māhishmati, whereas Mirashi,[9] Raychaudhari, Pargiter and others following Fleet[10] have identified Māhishmati with Omkar Māndhātā; Cunningham[11] differing from both these thought that it might be Mandla.

Mahismati in Literature

Māhishmati, according to the early Buddhist literature, which in its present from seems to be earlier than the Puranic or embodies stories about events which find corroboration in monuments of 2nd-1st century B.C., was situated towards (not in) Dakshinapatha. According to the *Mahāgovinda Suttanta*,[12] Māhishmatī was the capital of Avanti, one of the seven kingdoms (*Janapadas*) of Renu's empire. More specifically it lay on the highway from Paithan to Ujjain. *Sutta-Nipāta*[13] narrates a story of a Brahmana sage, Baveri. Summarised, this says that the hermits dwelling on the bank of the Godhavari (Godāvarī) in the neighbourhood of Alaka,[14] in the territory of Assaka, going north in search of Buddha went to Pattithana on the east of Alaka, then to Mahissati, and then to Ujjeni, Gonaddha, Vedisa, Kosambi, Saketa, Savatthi and so on.

This passage depicts a living tradition as pilgrims from Mahisatī or Māhisati along with those from Ujeni (Ujjain), Pratithana (Paithan) and other places recorded their donations on the *stupas* as Sanchi.[15] These are not later than 1st century B.C. and some portions of them might go back to 2nd or 3rd century B.C.

1. Dikshit, S.K , *op. cit.*, p. 131. All the Puranic references here cited are taken from him, but checked and more logically presented.
2. Dronaparvan, Adhyaya 200 (Vachaspatya, Nāgari Ed.), Vol III, p. 3373.
3. Sabhaparvan, critically edited by Edgerton, Introduction, p. xxvii and *JAOS*, Vol. 58, pp. 262ff.
4. *Proceedings, Indian History Congress*, Patna Session, 1946, pp. 61 ff. The same article also appears elsewhere.
5. *JGRS*, VIII (1940), pp. 135-138.
6. Dikshit, *op. cit.*
7. Karandikar Vishnu. R., *Ancient India*, Vol. I, th. 2-5.
8. Wilford *op. cit.*,
9 and 10. *JRAS*, 1910, pp. 140-47 and p. 444, footnote 1; also Law, B. C. *Historical Geography of Ancient India*, Paris. 1954, p. 174.
11. *Ancient Geography of India*, p. 559.
12. *Digha-Nikāya*, Pali Text Society, ii, p. 220 f.
13. Fleet, 1910, *op. cit.*, p. 443 citing Faüsboll, *SBE*, X, Part 2, pp. 180-88.
14. Thls may be Mulaka as given by a manuscript cited by the *Sutta-Nipata*, Pali Text Society, New Ed. by Anderson D. and Smith Helmen, London, 1913, p. 195.
15. Bühler, "Inscriptions of Sanchi Stupa", *Epi. Ind.*, II, pp. 97-116.

Almost contemporary with the Buddhist tradition is the reference by Patanjali. While commenting (*Vārttika* 10 and 15) on Panini (3. 1. 26) he says that setting out from Ujjayini one could make sunrise (see the sunrise) at Māhishmatī.[1]

PURANAS

These references imply an earlier, well established existence of the city, which the various Puranas try to explain, though at a much later period, and hance at times their accounts are contradictory or confusing.

Several Puranas and the epics including the *Harivamsa*, unanimously declare that Māhishmatī was situated on the Narmada, and further associate the Haihayas, a braneh of the Yadu-*vamasa* with it. The names of members of the family ending with-*haya* and -*aśva* as *Dāśasva* suggest that these were Aryan-speaking people. It is also clear, whoever be the actual founder or the conqueror, that the previous inhabitans of the area were Nagas, whom the Haihayas defeated. Of the Puranic accounts that of *Harivamśa*[2] is slightly elaborate, and, if truly descriptive of the site of the city, might help in its location.

Muchukunda a son of Yadu, by one of five daughters of Dhumravarma, a Naga king, selected the Vindhyan valley, Here on the Narmada, a site full of dangerous rocks was selected and cleared for habitation. It was adorned with temples and provided with various types of roads and parks and protected with a moat[3] (*parikha*), having water all round and with also a bridge. It is also said that Māhishmatī was situated between the two Vindhyas, or the Vindhya and the Rikshavat (Satpura) ranges.

However, in the account given in an earlier section,[4] and also in *Padmapurana*, it is once said that Mahishmat, a son of Sahañja, a great grandson of Haihaya, one of the sons of Yadu, founded Māhishmatī. Again 20 *ślokas* later,[5] we are told that the city was conquered by Arjuna Kartavirya from the sons of Karkotaka Naga. The *Vayu*[6] and the *Matsya*,[7] both believed to be comparetively early Puranas, also endorse the last view.

Two other accounts in the *Padmapurana* are interesting and significant. While describing the Bhumikhanda,[8] an enlarged version of Prithuvainya's exploits it says

1. First cited by Fleet, 1910, *op. cit.*, p. 441; also Dikshit, S. K., *op. cit.* and Kane. P. V., *JBBRAS*, Vol. 27 (1951), p. 38 and Kielhorn, *Mahābhāshya*, Vol. II, p. 35.
2. Adhyaya 38, *ślokas* 14-20, p. 246.
3. This clearly implies that the city was not founded on an island, as Omkar Māndhātā suggusted by Pargiter—*Mārkaṇḍeya Purāṇa*, p. 333, and Introd., p. 9 and accepted by Fleet, *op. cit.*, 1910, p. 445.
4. *Harivamśa*, Adhyaya 33, *ślokas* 4-5, p. 89. cf. also *Padma*, VI, 115.
5. *Ibid.*, *sloka* 26.
6. Mitra, Rajendralal, Bibliotheca Indica *Matsya Purana*, Calcutta, 1888. Vol. II, Adhyaya 32, verse 26.
7. Anandashrama, Poona, 1907, Adhyāya, 43 *v.* 29. Whereas according to *Padmapurāna* (Pārtha) Vaina ruled in the Narmadā valley.
8. *Ibid.*, II, 27, 86-88.

that Prithu gave the Haihaya and Kalingadeśas to Sutas, Magadhas, Vandinas and Charanas, whereas he himself after having made a city after his name, stayed on the bank of the Reva. This implies that the country already called Haihaya, before Prithu gave it away.

The second account[1] narrates that Muchukunda, grandson of Māndhātā of the Lunar family, though originally descended from Ikshavaku of the Solar family through Ila (ā), became the lord of the Narmadā valley.

MAHABHARATA

The *Mahābārata* gives a few additional details. When during his *digvijaya* Sahadeva proceded to conquer Māhishmatī on the Narmada after subduing Navarāshtra, Kuntibhoja and Bhoja, the son of Jambhaka on the Chamanāvati (Chambal), it was being ruled by king Nila.[2] Since the latter was assisted by Bhagavan, Havyavahana (Agni), Sahadeva was helpless. He then propitiated the Fire God who told him that he was bound to protect the city as long as the king's dynasty lasted. From Māhishmatī, he went south to Traipura (Tripura), This passage from the *Mahābhārata* admirably fixes the position of Māhishmatī, between the Chambal and Tripuri in about the 1st century B.C., as would appear from references to Rama.[3]

Referring to an earlier period, the Anusasana Parvan tells us that Māhishmatī was the capital of Daśśava,[4] a son of Manu; then of Duryodhana,[5] a great-grand-son of Daśāśvā, who had married the Narmada, and given his Daughter Sudarśana in marriage to Agni and finally of Arjuna Kartavirya.

Tripura

Tripura or Tripuri which Rudra destroyed from Maheśvara was according to one account, *Matsya*, inhabited by Asura Bana,[6] according to another[7] in the same Purana, by Tarakasura. The *Mahābhārata* cited above, places it immedlately south of Māhismatī. This would point to Tripuri, modern Tewar[8] on the Banasanga, a tributary of the Narmada.

While considering the question of identifying Māhishmatī of the Haihayas with that of the Kalachchuris, it should be remembered that the Puranas neve refer to

1. *Padma Purana*, V, 8, 39-40.
2. Edgerton, Critical Ed., The Sabhā Parvan Poona, 1944, *Sarga* 28, verses 1-38; also Vol. VI, Udyoga Parvan (Critical Ed. by S. K. De, Poona. 1940). *Sarga* 139, verse 23; Kane, *op. cit.*, also mentions *sarga* 166, but this *sarga* does not contain any reference to Māhishmatī.
3. Edgerton, *op. cit.*, Introduction, p. xxviii, and *JAOS*, Vol. 58. pp. 262 ff.
4. Sorensen, *Indcx to the names in the Mahābhārta*, Vol, I, p. 458, citing from Bombay Ed., XIII, 2, 69.
5. *Ibid.*, 166 and 153,
6. Adhyāya, 187-88 (Anandasrama Ed., Poona, 1907), pp. 410-16.
7. *Ibid.*, Adhyāya, 138, but see also 129-40, pp. 234-61.
8. Actually it—Tewar — on east-north-east of Maheswar, but might have been regarded as south of Mahishmatī, if Sahadeva went to it, after crossing the Narmada.

Māhishmatī of the Haihayas while narrating the destruction of Tripura by Rudra. The parties and the places concerned are Rudra, Indra, Narada and other gods on one side with Maheśvara as the centre ; on the other Maya, Tripurasura, Tarakasura and Banasura stationed at Tripura.

Probably it was at a much later date that the Haihayas, Chedis and Kalachchurias came to be identified, and it was during the historical period[1] that Tripuri became a second Chedi or Kalachchuri capital, though it is not impossible that stories to which the Puranas refer to are conflicts among the various allied clans, of which the Chedis are the earliest, mentioned as they are in the *Rigveda*.[2] From the various references to the Chedi country and its capital Suktimati both in the *Mahābhārata*, and early Buddhist and Jaina literature, and the proved numismatic and archaeological antiquity of Tripuri, the above inference drawn from the collation of the Puranic and other accounts would seem quite justified. It is these traditions, viz. the association of Rudra with Maheśvara, the destruction by fire of Tripuri by him, and the protection of Māhishmatī by the Fire God and its long connection with Haihayas. who were later identified with the Chedis or Kalachchuris—the rules first of Māhishmatī and then of Tripuri—that have given ground for the identification of Maheśvara with Māhismatī.

Classical Literature and Inscriptions

Literature

Kalidasa, Dandin, Rajaśekhara and Murari echo this description of Māhishmatī. The former[3] narrates that Pratika, a descendant of the Haihaya family ruled it at the time of Indumati's marriage. It was guarded by the Fire God and was encircled by the Reva (Narmada) like a girdle round its hip-like[4] ramparts.

Dandin not only confirms this description but seems to give a true picture of the political conditions in Malwa and the Deccan in the 6th century A.D. as Mirashi has admirably shown,[5] though the names of the rulers might be fictitious. Māhishmatī was one of the kingdoms in Anupa, and its king was of the Bhoja family.

1. This has been already stated clearly by Raychaudhari, *Political History of Northern India* (Calcutta, 1950), p. 129. Therefore Dikshit, M.G., *Tripuri*—1952 (Nagpur, 1955), p. 9, does not seem to be justified in saying that Chedi was a general name of the *Janapada* (country) right up to the Narmada. Chedi *janpada* comparised a part of the country south-west of the Yamunā, but beyond that was the Avanti *janapada* of which Māhishmatī formed the southern border.
2. VII, 5. 37-39.
3. *Raghuvaṁśa*, VI, 42-43 (*Māhishmativapranitambakāñchīm*).
4. Dikshit, S. K., *op. cit.*, p. 138 (equating *nitamba* with *jaghana*) argued that the river formed a semi-circle. As shown below it is not neccssary to stretch the meaning this way. For, if anything, it would suit Omkāra Māndhāta more than Maheswar.
5. Mirashi, "Historical Data in Dandin's *Daśakumaracarita*", *ABORI*, XXV, pp. 22-31. The account is given in the eighth chapter of *Dasakumaracarita* of Dandin (Ed. by Peter Peterson, Part II, Bombay 1891), *Uchchvāsa*, 8, pp. 60-61.

By the time of Rajaśekhara[1] and Murari,[2] the Kalachchuris had established themselves at Māhishmatī, though the former still takes its history back to the Haihayas, while his description of the city with moats and ramparts formed by the Narmdā, recalls that of Kalidasa and Dandin.

MEDIEVAL INSCRIPTIONS

Epigraphical references to Māhishmatī are comparativeiy few and not of much value, though in their range they indicate the existence of the city for nearly 1500 years. Those of the earlier period from Sanchi *stupas*,[3] as pointed out above, merely mention Māhishmatī or Mahissati. Of the early medieval period, we have two copper plate grants of one Maharaja Subandhu[4] (A.D. 416-17 or 479-80) found respectivey from Barwani and Bagh caves. Both the grants were issued from Māhishmatī. The former mentions a place (village) Sohajana-Padraka in Udumabaragartāpathaka, and the latter to Dasilakapalli. Mirashi's identification is not happy, otherwise it would have been easier to locate Māhishmatī. He himself identifies it, in the text, with Omkara Māndhātā, whereas the map which gives names of places in early *Kalachchuri Inscriptions*, facing p. xxxiii, Maheshwari.[5] The latter is more probable, as it is nearer to Barwani and the places identified.

The next reference is of the medieval period, nearly 100 years later. Here a copper plate of Paramara Devapala[6] was found in the Śiddheśavara temple at Omkāra Māndhātā. It was issued from the king's residence at Māhishmatī and refers to Satajuna, in Mahanda-pratijāgaranaka. These places are identified with Satajuna, about 13 miles (20.8 km) south-west of Māndhātā and Mahauda, or Mohad 40 km south of Satajuna. Both Kielhorn and Ganguly[7] think that Māhishmatī of the inscription is no other than Maheshwar. Since the inscription was found in a stone-chest near the temple and refers to the king's residence, whose family built a number of beautiful temples at Māndhātā, it may be argued that Māhishmatī should be identified with Māndhātā, and not Maheshwar. However, these places are not more distant from Maheshwar as a sudy of the maps would show.[8]

One very important point has been missed by all previous writers on the subject so far. Devapala, the Paramara, made the grant while stationed at Māhishmatī, and after having bathed in the Reva and after having worshipped Śiva (Bhavanipati), whose shrine) was near that of Vishnu (Daityasūdana).[9]

1. *Bālarāmāyana*, III, *Śloka* 34. In his *Kāvyamimāmsā*, p. 93, Rajaśekhara places Dakshināpatha, south of Māhishmatī.
2. In his *Anargha-Rāghavam*, Act VII, between *ślokas* 114-115 (Kāvyamāla Series, No. V, Bombay, 1887).
3. *Epi. Ind.*, II, pp. 97-116
4. Mirashi, CI1, *Inscriptions of the Kalachuri Chedi Era* (Ootacamund, 1955), V, Part I, pp. 17-19, 19-21, IV.
5. Unfortunately one inch to a mile map of this area is not available to me; hence I cannot propose a more suitable identification.
6. *Epi. Ind.*, IX, p. 103.
7. *Ibid.*, p. 106 and Ganguly, D.C., *History of the Paramara Dynasty* (Dacca, 1932), p. 210.
8. One inch to 4 miles, Map. No. 46/0 and N.
9. Mandhātā Plates of Devapāla (V) S. 1282, *Epi. Ind.*, IX, Text, p. 109, 11. 19-20.

Now the question might be solved whether Māhishmatī was Maheshwar or Omkara Māndhāta if there were temples of Śiva and Vishnu (of the Paramara period) in close proximity at either of these places. Of course, both the places have a number of temples, but at Omkara Māndhātā the Paramara ruins can be easily identified,[1] whereas at Maheshwar it is difficult and can only be done by a detailed study.

Late Inscriptions

Still later inscriptions[2] come from Maheshwar proper and one specifically calls it Māhishmatī. They belong to the reign of Akbar and are in Sanskrit. The details are in Sanskrit. The details are as under :—

I. Inscription of 1565 A.D. (V.S. 1622, Śaka 1487) from the modern Kāleśvara temple. It records the restoration of a Maheśvara tempie, called Adilimga at Agnitirtha, Kalagnirudrakshetra Daśalākshatirtha at Māhishmatī, near Manṇḍpāchala in Malwa at the confluence of the Reva and Māhishmatī by one Mandloi Devadasa.

II. Inscription of 1570 A.D. (V. S. 1627, Śaka 1491) from Matangesvara temple. It records the restoraiion of the Kaleśvara temple by the Mandloi.

III. Inscription of 1571 A.D. (V. S. 1627, Śaka 1492) from the Jaina temple. It records the restoration of the Adinatha temple by Mandloi Devadasa.

IV. Inscription of 1575 A.D. (V. S. 1635, Śaka 1500) found in a Śiva temple at the Markata Sangama—of the Keva and Vedā—near Mandleshwar. It records the restoration of temple by the Mandloi Jagannatha.

The Muslim monuments at Maheshwar contain a few Persian inscriptions.[3] These testify to the prosperity of the place in Akbar's time, and even later, but are unimportant from our point of view as they do not refer to Māhishmati.

Omkara Māndhātā

Omkara Māndhātā or simply Māndhātā (22°12′ N, 76°O′ E.) is an island in the Narmada. It is about 59·5 km above Maheshwar, but considerably distant by road. The approach from the railway is through a jungle on the southern side. Just where the site is, the river has cut through beautiful sandstone formations. The river channel is deep and narrow, with high, rocky banks, The main temple (Omkareśvara) is situated

1. For Siddheśvara temple, see *ASAIR*, 1902-04, p. 57.
2. Briefly recorded, probably for the first time, though referred to by Bose in 1880, by Diskalkar, D.B. in *Magnificent Maheswar* issued by the Director of Information, (ERSTWHILE) Holkar State, Indore, pp. 33-34. The same article is published in the *Proceedings, Indian History Congress* (Patna, 1946).
3. *Ibid.*, p. 34.

on the northern side. Higher up on the same side are magnificent temples (in ruins), some with *toranas* of the Paramara period. There are a number of old temples on the southern side also. When Malcolm visited it he noticed remains of fortifications on the island.[1]

Other late, medieval or early notices of the place seem to be few (unless it be identified with Māhishmati). Puranic references are also scarce. There is one in the *Sivamahapurana*[2] and one in the *Saura Purana*.[3] Both these, however, describe the sacredness of Omkareśvara, but do not couple it with Māndhātā, of which there is no mention at all. However, after Fleet and Pargiter some writers[4] identify it with Māhishmatī.

Mandla

Mandla is situated on the right bank of the Narmada,[5] which "makes a sort of a loop round the city". There was also a fort, which on two sides was defended by a moat, while the other two were washed by the river. The inhabited city extends for a distant of two miles (2.3 Km), along the river. "It is a long straggling place, and of very little width". This is true of Maheshwar also. Again like the latter, the place with its ghats and temples looks beautiful from the opposite bank. However, Cunningham who inspected the place in 1873-74 did not find anything very old there. Dr M. G. Dikshit who seems to have visited it very recently holds a similar view.[6]

Because of certain features occurring in the description of Māhishmatī in the *Harivamśa* and in the *Raghuvamśa*, Cunningham probadly identified it with Māhishmati.[7] Until, however, Māndlā's antiquity is proved,[8] it merits no consideration. Secondly, its geographical position does not fit in with that of Māhishmati.

Identifications

Fleet[9] and Dikshit[10] also discussed at length Rice's statements[11] that Mahishamaṇḍala and Māhishmati could be some place in Mysore. This from our point of view is irrelevant, as we are discussing the Māhishmati on the Narmada.

We have now traced the antiquity of Maheshwar, Māhishmati, Māndhāta and Mandlā in traditional literature, and accounts of travellers as well as in inscriptions.

1. Malcolm, John, *Memoir of Central India* (London, 1832), Vol. II, p. 504. (See under Mundatta.) Also *Ind, Ant.*, 1896, pp. 53-56.
2. *Śivamahāpurāṇa*, IV (Kāli Rudra samhitākhaṇḍa) A. 18.
3. *Saura Purāna* (Anandasrama, Poona, Saka 1811), VI, *ślokas* 15-18.
4. Chaudhari, Sasi Bhusan, *Ethnic Settelments in Ancient India* (Caleutta, 1955), p. 67. He gives no new evidence. So also Law. B.C., *India as depcited in Early Texts of Buddhism and Jainism* (London, 1941), p. 77. See also p. 635.
5. The description is taken from *CASR*, Vol, VII, pp. 103-106.
6. Conveyed to me orally on 7-2-1957.
7. Cunninghan, *Ancient Geography*, p. 488 (Old Ed.)
8. It should be searched for painted pottery in the layers below the fort walls.
9. *JRAS*, 1910, pp. 429-41, and the views of Wilson and Rice cited on p.442.
10. *Arthaśāstra*, Ch. 34, p. 81 (Ed. regards Mahisha cotton as the best. This might point to Mahishmatī as it lies in a very rich cotton belt).
11. Fleet, *op. cit.*

A brief idea is also given of how the first, the third and the fourth look today. From these it must have been apparent that the identification of the second with the first or with the third must rest upon circumstantial evidence.

Hitherto the most exhaustive attempts at the identification of Māhishmati are those of Fleet,[1] Dikshit,[2] and Diskalkar.[3] The first after very nearly identifying Māhishmati with Maheshwar, chose to agree with Pargiter[4] in identifying it with Omkara Māndhātā. Fleet argued that though Maheshwar and Mandhata equally satisfied certain conditions, namely, that they were

(i) holy places and on the Narmada,

(ii) on the highway from Paithan to Ujjain, and

(iii) near to Tripuri (Tewar), as demanded by the *Mahābārata*,

there was one condition, according to which Muchukunda founded the city of Māhishmati on a rocky region on the Narmadā, between the Vindhya and the Rikshavat. This is fulfilled by the situation of Omkara Māndhāta. He, therefore. identified it with Māhishmati.

Dikshit[5] and Diskalkar[6] have well contested the case for Maheshwar, citing in addition the extensive ruins of Maheshwar, and the temple of Jvaleśvara at Maheshwar, as the one referred to by Kalidāsa and some Puranas, or the second place called Jaleśvara on the Narmada. Regarding the crucial point, on which Fleet tipped the balance for Māndhāta, Dikshit finds some difficulty, and suggests that *Harivamśa's* description of Māhishmati between the two Vindhyas should be regarded as a loose expression. If so, some hills are within 5 miles (8 Km) of Maheshwar.

Maheshwar identified with Mahismati

I think, however, that it is not necessary to stress the case this way. It can be proved that Fleet's interpretation does not suit Māndhāta, whereas Maheshwar satisfies all the conditions. The reasons are as follows:

(i) Muchukunda is supposed to have built a moat round Māhishmati. This would not be necessary at Māndhāta as the island is in the river. At Maheshwar, however, as shown in our topographical description of the place, a moat could easily have been made (and probably it was made) by joining the river Maheshwarī with the Narmada.

(ii) From the point of view founding a new settlement, the Māndhātā region is extremely unsuitable. It is rocky; at Maheshwar, on the contrary, are open, cultivable stretches on either side of the river.

1. Fleet, *op. cit.*, pp. 444-47.
2. Dikshit, S. K., *Proceedings*, Indian History Congress (Calcutta, 1939), pp. 141 ff.
3. Diskalkar, *op. cit.*
4. Fleet, *op. cit.*, p 445. Pargiter, *The Mārkaṇḍeya Pnrāna*, Translation, Bibliotheca Indica, Calcutta, 1914), p. 333, note.
5. Dikshit, S. K., *op. cit.*
6. Diskalkar, D.B., "Maheswar through the Ages"; the same article is published in *Proceedings*, Indian History Congress (Patna, 1954), p. 60 ff.

(3) Māndhātā[1] does not lie on the highway from Paithan to Ujjain. But Maheshwar does. The road from Paithan, as the *Road Map of India* shows,[2] goes to Aurangabad. From there it passes through the Ellora and Ajanta caves, the old Buddhist settlements, and from near Jamner or Jalgaon, it crosses the Tapti at Bhusawal or Burhanpur. From either of these it proceeds to Khandwa *via* Assir, and then crosses the Narmada, probably at Maheswar, either through Khargaon and Kasrawad. Even the modern Khandwa-Indore highway crosses the Narmada at Kherghat.[3] Māndhāta lies further to the east, and there is no crossing there, or any continuation of the road northwards. Whereas from Maheshwar, Indore is due north and thence Ujjain, one of the most important places in Central India from the 5th century B.C. to 5th-6th century A.D.

As Diskalkar[4] has already pointed out, this was the main line of communication for at least the last thousand years, traversed by the British, Marathas, and the early Muslims.

The existence of Buddhist caves, as well as *stupas* at Kasrawad[5] and now at Navdatoli, just opposite Maheshwar, as shown by our excavation, would prove indubitably that this must have been the ancient highway along which the *Bhikshus* Bhikshus went from Paithan to Ujjain and thence to the east, to Sravasti.

The epigraphical evidence is not conclusive, it must be admitted. A 16th century epigraph from Maheshwar, however, definitely speaks of it a Māhishmatī. As against these we have no evidence for Māndhāta.

Numismatic data also favour Maheshwar. Not only it has yielded a series of pre-Christian coins of the Andhra, the Tribal, the very small and the normal silver and copper punch-marked coins, but recently a coin bearing the words *Mahisati*[6] in characters of the 3rd century B.C. has been found from Maheshwar itself, in addition to the one from Ujjain and two earlier ones from unknown sites.

Lastly, the excavations and explorations at Maheshwar and Navdatoli have proved the great antiquity—going right back upto the Early Stone Age—of these two sites on the Narmada. Of these, the Chalcolithic phase now dated by several Carbon-14 dates both by laboratories in America and India is pertinent to the present problem. These unquestionably prove that both Maheshwar and its offshoot or a suburb Navdatoli had been colonized by a people probably with Iranian affinities in about 2000 B.C. Though

1. Karandikar, *op. cit.*, p. 13 (of the Report) says the old trade-route passed through Omkaro *via* Burhanpur. However, he gives no authority, and his arguments about the antiquity of the remains are fantastic.
2. 50-*Mile Road Map of India*, Sixth Edition.
3. One inch to one mile Map, No. 55B/4.
4. Diskalkar, *op. cit.*
5. Diskalkar, "Excavations at Kasrawad" *IHQ*, Vol. XXV, pp. 1-18. Also *Proceedings*, Indian History Congress, (Patna, 1946), p. 61.
6. *JNSI*, XVII (1955), p. 95 and other references therein.

they lived in wooden mud-plastered houses, painted white, still they knew agriculture as evidenced by several types of grains and oilseeds—including wheat, rice, lentil and linseed—from their house debris. And though we cannot with any certainty identify these people with any Puranic tribes, still there is no doubt that future work at Maheshwar (which still awaits large scale excavation) as well as in Malwa will help in solving this problem.

CONCLUSION

If there is any place on the Narmada known today which has a continuous chain of mounds proclaiming the site of ancient city on both the banks, which lies on the highway from Ujjain to Paithan, which has Buddhist *stupas* near and around, which has a large number of Saiva and Vishnu temples, some of the 13th century as well, a site where a moat might have been mande round the city, so that the Narmada as it were formed a girdle round it, as imagined by Kalidasa, Dandin and Rajeśekhara, a site, which, at least during the last 300 years has been identified with Māhishmati, a site which during the periods immediately preceding could as well be Māhishmati mentioned in inscriptions of the 2nd century B.C. and 5th and 13th centuries respectively, and finally a site the antiquity of which the excavations have taken right back to the prehistoric period through a protohistoric, then such a place is Maheshwar. Excepting that no early record but coins are found from Maheshwar, calling it Māhishmati, Maheshwar fulfills all the conditions for identifying it with Māhishmati.

THE ANTIQUITY OF GLASS BANGLES IN INDIA

Glass bangles, particularly of the type mentioned in this article, do not seem to be more than 600 years old in India. Such bangles of glass probably first came into existence in the 14th century A. D. when the Persian Muslims established themselves in India, partly as soldiers of fortune, and partly as artists and carftsmen.

Some kind of hand or arm ornament, called by its shape, the material used in it and its position (on the arm or hand), as armlet, wristlet, bracelet or bangle[1] for decorating the body is known in society—primitive and civilized—for several thousands of years. Bangles of chank (*sankha*), and various kinds of soft and semi-precious stones were current in Europe during the New Stone Age,[2] and during the chalcolithic times in Crete,[3] Mesopotamia,[4] and Egypt.[5]

Originally it was worn both by men and women. Until very recently some kind of hand or arm ornament, called variously *kadu*[6] or *kallu*, *panhochi* (wristlet or bracelet) either solid or flexible, of gold or silver was worn by boys and men in India. However, from the time of the *Mahabharata*, a *śankha valaya* (chank bangle) as the story of Brihannada[7] indicates, had come to be regarded as a sign of femininity. This tradition has survived through the medeival (when a Rajput for his cowardly conduct in war was presented with a pair of bangles) to the modern times and was witnessed during the Civil Disobedience Movement.

1. The word is *Bangadī* (Gujarati), *Banga* (Punjabi), *Bāngadi*, (Marathi). According to Hobson—Jobson, p. 60, "The original word properly means a ring of coloured glass worn on the wrist of women; (the *chūri* of N. India) ; but bangle is known to it, is of 1803." According to Dr. Katre, the word may be drived from Sanskrit *Vakra*; bent, or crooked, Pk. *Vanka*—(already Sk. *Vanku)*, which would become in the North-Western Prakrit dialect *banga*. From this it seems to have been borrowed by the Western Prakrit dialects, like Gujarati and Marathi. The dictionaries give no pre-Muslim references. It seems, therefore, that the word is of later growth.
2. Childe, V. Gordon, *Dawn of European Civilization*.
3. Glotz, *The Aegean Civilization* (1825), pp. 80-81.
4. Delaporte, *Mesopotamia* (Babylonian and Assyrian Civilization), pp. 196 and 337.
5. Glanville, *The Legacy of Egypt*, p. 98.
6. Perhaps these were so from very early times. Dr. Katre kindly draws my attention to a remark of Patanjali, where he says that *kataka* was made of gold.
7. I am obliged to my colleague Dr I. Karve for pointing out this story, Virata Parva (Critical Ed.) IV. 40. 23. We are told therein that Arjuna who had so far assumed the dress of a dancer discarded it and along with it the *Valāya* or *Sankhachuda*.

But a *valaya* was not only a sign of femininity. For a married woman, at least from the times of Hala who composed the *Gāthasaptaśatai*,[1] a *valaya* was a characteristic showing that her husband was alive. Of what this *valaya* was made, we cannot say for certain. Probably it was made of chank or lac.

Nowadays such a position is enjoyed by the glass bangle in Hindu society. If it breaks in daily life when the husband is alive, it is not to be called "broken". A special word or expression has to be used for such a broken bangle. Gujaratis describe it with the expression "*Nandavai gai*", meaning, that the bangle is jingling ; the corresponding expression in Marathi is "*Vadhaleli*" signifying, probably, that it has "increased". In this conventional, euphemistic usage there is implied reference to the custom of breaking a widow's bangle (by her own hand) as soon as the husband is dead. Thus in a married state a (glass) bangle is supposed to be "unbreakable". And it was for this reason that one of the expressions used in blessing a married woman was to describe her as having "*vajrachūdāmaṇi*", one wearing *chudā* (bangle) of unbreakable chank-shell.

Glass bangles seem to have acquired in Hindu social life such a high position during the Muslim and post-Muslim periods. For, research during the last two years has shown that glass bangles probably first came to be made in the Deccan (India) during the Bahmani period (A.D. 1347-1525).[2]

We have two kinds of archaeological evidence for the above statement. The first is negative. As said earlier the bangle as an object for decorating the body goes back to Neolithic times. In India the earliest specimens so far found belong to the Indus Valley Culture, found from Harappa, Mohenjodaro, and other sites in Sind. These bangles are made of either gold, ivory, bone, chank, clay, etc. Other specimens found after an interval of about 2300 years, recovered from excavation at ancient sites of Takshasila, Pataliputra, Bhita, Sanchi, Bairat, Rairh, Amreli (Kathiawad), Paithan, Kolhapur, etc., are also of similar material or of lac. From a few sites, pieces of glass bangles have been obtained, but since these are surface finds for a chronological study these are useless.

Reference in literature or shapes of bangles suggested by paintings in the Ajanta, Bagh and other caves, or the sculptures from Barhut, Sanchi, Mathura, Amaravati[3] and Nagarjunakonda[4] prove merely the popularity and antiquity of the bangle as as ornament used by women and men. These do not indicate as a rule the material used in the ornament, though it may be guessed in some cases. These comprise gold, rarely silver,

1. Weber (Ed.), *Gihātasapa Sati* (Leipzig, 1881), p. 250.
2. Other bangles, of gold, etc., are not known to be broken. Possibly because, being of precious metal, they are allowed to remain with the widow as her property. As such some widows in aristocratic and richer classes nowadays wear gold bangles, but the Hindu religion strictly does not permit it.
3. Sivaramamurti, *Amaravati Sculptures*, Bulletin, Madras Govt. Museum (1942) pp. 111-12 and pl. vl.
4. Naik, "Studies in Nāgārjunakonda Sculptures" *BDCRI*, II, p. 86.

pearls, chank shell, lac and terracotta, all the materials, of which specimens have been obtained from archaeological excavations.

In no case it is possible to single out any specimen as made of glass. Thus the existence of glass bangles prior to the 14th century cannot be proved either archaeologically or from literature, sculpture and paintings.

On the contrary definite archaeological evidence was obtained from the excavations conducted at Kolhapur in 1945-46 that the glass bangle industry was introduced in the Deccan in or about the Bahmani period.

All the specimens of glass bangles—and these could be counted in hundreds—were found in layer three consisting of *Pāṇḍhrī Māṭī*, a soft, yellowish brown soil, formed by decomposed mud-walls and other debris.

These mud-walls were of two building periods, the top one dated on the evidence of coins found in association with it, to the Bahmani period; the one below to the immediately preceding Yadava or Śilahara. Practically all the glass bangles, wires, and glass slag were found from the Bahmani layer, and none from the layers below it, whereas the Bahmani layer itself was sealed by a thick layer of river-silt, and this in its turn by large rubble stones and top soil.

The presence of glass wires, of incomplete or rejected bangles and glass slag, show that the bangles were manufactured on the spot and not imported from elsewhere. Its stratigraphical position indubitably enables us to place it in the Bahmani period.

Bangles of the type unearthed at Kolhapur had been found by Foote and others before in the Deccan and Karnatak : at numerous place in Bellary District,[1] at Maski, Kadkal, Paithan (Maharashtra), Khanapur, Mangalvedha (Sholapur)[2] and Chandravalli whereas Sir Aurel Stein had found them in his explorations of Seistan, Baluchistan and the Indo-Iranian border.

Before arriving at any conclusion from Stein's discovery of glass bangles during his explorations in Waziristan and Northern Baluchistan, the territories of Kharan, Makran and Jhalawan comprised within the Kalat State, that is Southern and Western Baluchistan (or ancient Gedrosia, as Stein calls it), and North-Western India and South-Eastern Iran, it is necessary to record his evidence in detail.

In Northern Baluchistan fragments of glass bangles have been reported mainly from two sites:[3] a piece of a black glass bangle at a depth of a metre, along with painted grey ware, copper implements, etc., from the mound at Periano Ghundai (Zhob),[4] and similar pieces along with flint scrapers, stone beads and copper from a mound at Dabarkot, Loralai District "on low levels". But in the cutting DE on the same mound

1. Foote, *IPPA*, pp. 220-21 and pl. 44-45.
2. Part of this information from Dr M. G. Dikshit.
3. Stein, *Archaeological Tour in Waziristan and Northern Baluchistan*, MASI, 37, p. 440-41.
4. *Ibid.*, p. 60.

at the latter site, iron objects were also found along with fragments of black glass bangles.[1]

During the second tour, in Southern Baluchistan, a fragment of dark blue glass, "of uncertain age," was found on the surface of the mounds of Besema and Zayak (Kharan)[2]; a fragment of a black glass bangle, perhaps from an early stratum, at Tarbut[3] while the precincts of Miri yielded "pieces of glazed pottery of all kinds, ranging apparently from early medievel Persian ware to Chinese porcelain". Further at Suktagendor[4] was found on the surface along with blades and scrapers of flint, stone vessels and bangles of shell, "fragment of an elaborately decorated glass bangle", composed of three layers (cobald blue, brown and yellow) fused" together and having "its keel decorated with a row of shall raised light blue spots." Another fragment was found in a painted urn, at a depth of meter from the surface, at Shahi Tump.[5] On the surface of the mound[6] at Madak Kalat (Kolwa) numerous fragments of coloured glass bangles were picked up along with glazed pieces bearing arabesque ornamentation and iron implements.

A few fragments of glass bangles showing coloured decoration in relief or inlay were also found in the trial excavations on a mound at Kulli (Kolwa).[7] Like similar fragments found at Suktagendor and Shahi Tump, Stein regarded these as "manifestly imports from a far more advanced region". But since they were found at some depth, he thought them to be old.

At the same site in trench IV was found "a piece of a bangle made of very dark glass and ornamented with fine relief spirals in different colours",[8] along with terracotta figurines, a small copper fragment and pottery, plain and painted.

During the exploration in Pedissan, Makran Stein noticed on a small, flat, mound near the Castle of Jamshed, Giti,[9] the ground "strewn with plentiful fragments of glazed pottery, relief decorated ware, and glass bangles". The glass bangles showed great variety of colouring and are often decorated with 'jewels' in relief on a raised keel.

It is worth noting that Stein regards the glazed ware as belonging to medieval times, whereas according to R.L. Hobson such a pottery was of Persian manufacture of the 9th to 10 century A.D.

At Bampur[10] two fragments of a glass bangle were found at a depth of a metre, in what looked like a Muslim grave.

When elsewhere at Bampur[11] some more pieces were found then Stein observed, "the discovery of sevaral fragments of glass bangles, inlaid in colours, on levels of 60cm

1. *Ibid.*, p. 61.
2. Stein, *Archaeological Tour in Gedrosia*, MASI, 43 p. 34.
3. *Ibid.*, p. 55.
4. *Ibid.*, pp. 63-64.
5. *Ibid.*, p. 93.
6. *Ibid.*, p. 111.
7. *Ibid.*, p. 123.
8. *Ibid.*, p. 125.
9. Stein, *Archaeolgical Reconnaissances in North-Western IRAN and South Eastern Iran* (London, 1937), p. 82-85.
10. *Ibid.*, p. 106.
11. *Ibid.*, p. 109 and pl. x. 418.

and 90Cm raises an interesting problem. Their association here with prehistoric remains might be subjected to doubts were it not that glass bangles of a closely corresponding type are attested for quite a series of chalcolithic sites from Seistan to Kulli in Kolwa and Sutkagendor. Several of the decorated glass bangles found at different depths of the trench have been subjected to careful examination by Mr Horace C. Beck, without any definite conclusion being derived from it as to their age (according to to Beck the bangle could not be older than 1500 B.C.) Stein further adds, "It deserves to be noted that no distinct difference in the make of the glass was traced between the fragments from stratified layers and the numerous specimens found on the surface of the Bampur site".

At Chah Husaini[1] a fragement of a black glass bangle inlaid with a brilliantly coloured pattern was found at a depth of 4.8m along with pottery, etc.

Some fragments of decorated glass bangles turned up also at Sarkhqualat[2] and at other prehistoric sites. While along the Persian Gulf coast, on a site[3] which Stein considers to have undergone a prolonged occupation from early Islamic times, were found pieces of glass bangles with small raised spots of yellow and green, besides glazed ware and porcelain.

As the above record shows Stein found glass bangles of varied types (simple) black coloured with inlay work, and polychrome (several coloured bands fused together with beads on the uppermost band), in association with :

(i) painted pottery, stone implements, copper fragments, etc., probably of chalcolithic age ;

(ii) painted pottery, iron implements, etc.;

(iii) glazed ware, China ware, plain and painted pottery, and other objects of early medieval times.

This association in a large number of cases was merely on the surface. Only at four sites Shahi Tump, Kulli, Bampur, Chah Husaini were solitary pieces found at some depth in trial excavations.

On the strength of this evidence alone Stein was inclined to assign these solitary bangle pieces to the chalcolithic period, though he himself had often said, as quoted above, that their antiquity might be doubted ; that they seemed to be imports from advanced regions, and that they probably were of the same age as the glazed ware.

Beck[4] who examined the specimens from Bampur was pefinitely of the opinion that these glass bangles could not belong to the chalcolithic period, and at the earliest they might belong to 1500 B.C. While taking an overall view of Stein's finds, the nature of his excavations, the number of finds, and their association, it would appear more pro-

1. *Ibid.*, p. 128-129 and pl. x. 47-553.
2. *Ibid.*, p. 140.
3. *Ibid.*, p. 197.
4. Beck, *Ancient Egypt*, 1924, p. 13.

bably that the glass bangles are of the same age as the Persian glazed ware, that is to say, early medieval times (9th-10th century A.D.).

In fact it is to the same impetus which gave birth to beautiful Persian glazed pottery that we should ascribe the origin of the glass bangles. Here it is necessary to recall that numerous fragments of coloured glass bangles, some exquisitely inlaid, were found in association with Persian glazed ware and China ware at Miri, Madakkalat (Kolwa), Giti (Persian Makran) and Sūrkhqualat, whereas only a solitary fragment was found in the exacavation at Bampur, Chah Husaini, Kulli and Shahi Tump. These solitary pieces might have fallen down from the surface of the chalcolithic layer, or the layer in which it was found might itself be disturbed. Until a true stratigraphic exacavation is undertaken, the mere fact of the depth of a find could never be conclusive evidence of its antiquity. It not a little surprising that Hargreaves who conducted more systematic excavations at Nal and Mustung[1] does not mention a single occurrence of a glass bangle.

Prior to our excavation at Kolhapur and elsewhere such bangles had been found together with Andhra or Satavahana coins, and still earlier antiquities. And it was thought that the bangles too belonged to that remote period. But during the systematic and stratigraphic excavations hundreds of pieces were found in the Bahmani layer and not a single piece in the subsequent layers.

We now arrive at a point which, I think, will clinch the issues. Some of these Kolhapur and other (surface) Deccan bangles are identical in respect of the nature of the glass which is opaque and not transparent as in modern bangles, its colour, and technique of decoration with those found by Stein. In fact the pieces noted by Stein from Suktagendor, having three layers (cobald blue, brown and yellow fused together, and having its keel decorated with a small raised spot and others) could as well pass away as finds from Kolhapur.

Such an identity in technique of manufacture and not merely in form suggests two alternatives : First that the art of making such bangles was known in chalcolithic times in Iran or an adjacent country and thence was introduced into India (the Deccan), in early medieval times, that is, after 3000-4000 years, because so far no site in north India, either Maurya or Gupta or later is reported to have yielded such glass bangles.[2]

Or the second that the art first came to be known in Iran, along with that of glazed pottery, to which it is allied, in about the 9th-10th century A.D. and from these it gradually spread to India in about the 13th-14th century, with travellers—traders, craftsmen, and soldiers—who temporarily occupied the same mounds along the ancient highways, which were inhabited during the chalcolithic and early historic times.

1. Hargreaves, *Excavations in Baluchistan*, MASI No. 35.
2. This point needs to be emphasized because Manoranjan Ghosh, *JBORS*, X, p. 194 has pointed out that a glass flask, and some fragments of glass found at Taxila have been dated by Marshall to 6th cent. B.C., whereas glass seals were found at Pataliputra. Ghosh also cites reference from *Śatapatha Brahmana*, *Vinaya Pitaka*, and the *Arthasāstra* to *Kācha*, which if they do refer to glass would take the antiquity of glass to the 8th—4th century B.C.

Such a migration of the art of glass bangles is most probable when we remember that many of the monuments built by the Bahmani kings, viz. the Jami Masjid at Gulbraga, the Chand Minar at Daulatabed and the great College of Mahmud Gawan at Bidar were the works of Iranian craftsmen.[1]

It is also about the 12th-13th century that we have the first literary references to the manufacture of glass in India, as recently shown by Prof Gode.[2]

A survey of the present distribution of the bangle industry in different parts of India[3] also shows that the craft was mostly in the hands of Muslim families who practised it as a cottage industry. This is probably because the craft was first introduced by Iranian Muslims, and remained with their brethern for all these centuries.

As for as Kolhapur is concerned the stratigraphic evidence is conclusive that the glass bangle industry was first introduced in the 14th century, during the Bahmani rule in the Deccan. It is more than probable that it was so elsewhere in the region,[4] and other parts of India. Small but systematic and wide-spread excavations alone can, however, decide the issue.

1. cf. *Cambridge History of India*, III, p. 629. Persia played a prominent part in the development of their civil architecture. Mahmud Gawan was himself a Persian.
2. Gode, "The Use of Kāca or Glass in Indian Pharmacy (Between A.D. 1100-1800)", *BV*, Nov. 1946.
3. *Reports on the Industrial Survey of United Provinces and Reports of Survey, Cottage Industries*, Madras. I am indebted to Prof D. R. Gadgil for lending and drawing my attention to these Reports.
4. Dr R. E. M. Wheeler, former Director General of Archaeology in India has very kindly pointed out to me that a few very plain monochrome glass bangles were found in the Andhra layers at Brahmagiri Later specimens of these were sent to me for study. The bangles are identical with the plain types found in the Bahmani layers at Kolhapur. This would imply that either there is an overlap at Kolhapur or that the few pieces at Brahmagiri are of a later period. If we accept the first alternative, then the antiquity of the glass bangle of the simple type is to be pushed back to the Andhra period. To have a definite idea of its age, it is necessary that excavations are conducted at the several sites mentioned above.

25

HOUSES AND HABITATIONS THROUGH THE AGES

For a long time stretching over 2,50,000 years, Man lived in the open, along banks on rivers and lakes. Outside India, in Europe for instance, were periods when the cold was intense, there being ice all round, and Man had to resort to caves and take shelter under overhanging rocks. In England, France, Italy, Germany and Czechoslovakia have been found caves, which bear undoubted evidence of Man's habitation. So far no caves of such an early period have been discovered in India. There are, however, regions, like the limestone caves in the Kurnool District in the Andhra Pradesh, Mirzapur and Banda District in Uttar Pradesh and the sandstone formations in Central India where really prehistoric cave habitations are likely to be found. Even the Cave Men might have constructed tent-like structures, "tectiforms", some 20,000 years ago as the late Prof Gordon Childe pointed out in a review of Russian archaeologists' work in the Ukraine and Siberia.[1]

Now from almost all parts of India (Map), for instance the rivers Indus, Sohan, Banganga in the Punjab,[2] the Banas, Baraiach, Gambhiri in Rajasthan,[3] the Chambal and the Narmada and their tributaries in Malwa[4] and Central India,[5] the Sabarmati, Orsang and others in northern and Central Gujarat,[6] the Godavari, Paravara,[7] Mula Mutha,[8] Chandrabhaga in the Deccan,[9] Ghataprabha, Malaprabh and Tungabhadra in Karnataka,[10] the Krishna and its tributaries in Andhra,[11] the Palar or Kortalayar in Tamil

1. "Cave Men's Buildings". *Antiquity* XXIV (1950), pp. 4-11; also "Coal in the Ice Age . . . a Palaeolithic Settlement. . . in Siberia", Klima, Bohuslay in *Antiquity*, Vol. XXX (1956), p. 98.
2. Lal B. B., "Palaeoliths from the Beas and Banganga Valleys, Punjab", *AI*, No. 12, pp. 98-113.
3. *IAR 1945-55*, p. 58; *1965-56*, p. 68; *1956-57*, p. 6; *1957-58*, p. 45; and Khatri, A. P., "Stone Age Tools of the Gambhiri Basin", *JBU*, XXVI, (1958), pp. 35-49.
4. Khatri. A. P., *Stone Age Cultures of Malwa* (Ph.D. thesis, Poona Universty 1958), and Sankalia, H. D., and Khatri, A. P., Stone Age Cultures of Malwa", *Journal, PSI* (Wadia Number), pp. 183-89.
5. de Terra, H., and Paterson, T. T., *Studies in the Ice Age in India and Associated Human Cultures*, (1939).
6. Sankalia, H. D., *Investigations into the Prehistoric Archaeology of Gujarat*, Baroda, (1946).
7. Sankalia, H. D., "Animal Fossils and Palaeolithic Industries from the Pravara Basin at Nevasa", *AI*, No. 12, pp. 35-53, and Sankalia, H. D., *The Godavari Palaeolithic Industry* (1952).
8. *IAR 1956-59*, p. 78.
9. *Ibid.*
10. Joshi, R. V., *Plieistocene study of tha Malaprabha Basin*, Poona-Dharwa 1955.
11. Soundara Rajan, K. V., "Stone Age Industries near Giddalur, District Kurnool", *AI*, No. 8, p, 64.

Nadu,[1] the Burhabalang and the Brahmani in Orissa,[2] and the Singrauli in U. P.[3] hundreds of stone tools have been found. These indicate the one time habitat of Man along the banks of these of rivers.

These men hunted wild ox, wild horse, elephant, rhinoceros, hippopotamus and other animals[4] and eked out a living. Of course, these men could not have solely subsisted on animal food. With their stone tools men must have dug out roots of trees and tubers, and enjoyed whatever fruits were eatable. From evidence in a cave from China,[5] S. Africa, Syria, Palestine and Jersey it also seems that this Early Man knew the use of fire, that is, he cooked his food. Very recent work in East Africa shows that Man at this period not only made huge implements of stone but also utilized ivory and the teeth of hippopotami.[6]

Throughout this long period, neither the nature of the tools nor the climate, nor, say, the environment of Man remained the same. The tools became finer, and more shapely. Then between 50,000 and 10,000 years ago, they became smaller and more varied, because (obviously) another Man had come upon the scene. This new comer must have used a bow and arrow, and hafted tools.[7] But so far we have no evidence about his habitation or his other ways of life, except the fact that his work-shops or factory sites are found a little away from the river where veins of chert and jasper are easily found. These are usually at the foothills. It is, therefore, presumed that these must have remained the same as before, since the tools are found on open river banks. (See Map)

In the next stage, known as Mesolithic, because it lies between the Old Stone Age and the New Stone Age, Man was still a hunter, though he did frequent the river valleys as before. In some parts of India, particularly in central and northern Gujarat, he preferred to stay on small sandy hilocks, which enclosed a small natural pond. These habitations were more permanent than before. For, here are found thick heaps of his kitchen refuse in the shape of broken and cut animal bones, and burials of Man himself, neatly laid in an extremely flexed posture.[8] It is possible that these habitations had a temporary covering. But, so far no traces have been noticed, not even the outline of wooden or bamboo poles which might have enclosed these habitations. Though, from a reading of the evidence from Siberia, as pointed out by Childe, some sort of tent-like structures must have existed and may be found in more extensive excavations.

Though, practically throughout India, small, tiny implements called microliths, indicating such a cultural stage, have been found, nowhere except at Langhnj in N.

1. Krishnaswami, V. D. "Stone Age India", *AI*, No. 3, pp. 33.
2. Bose, N.K., and Sen, D., *Excavations in Mayurbhanj*, Calcutta, 1948, and *IAR, 1957-58*, p. 40.
3. Krishnaswami, V. D., and Soundara Rajan, K. V., "The Lithic Stone Industries of the Singrauli Basin, District Mirzapur", *AI*, No. 7, pp. 40-65.
4. de Terra and Paterson. *op cit.*
5. Oakley, Kenneth, "The Earliest Fire Makers", *Antiquity*, Vol XXX (1956) pp. 102-107.
6. Leakey, L S. B., *ILN*, July 5, (1958). p, 41.
7. Sankalia, H. D., *AI*, No. 12 and Banerji, K. D., *Middle Palaeolithic Industries of the Deccan*, Ph. D. thesis, Poona University, 1957.
8. Sankalia, H. D., and Karve, I., Primitive Cultures and Peoples of Gujarat", *American Anthropologist*, LI, No. 1949.

Gujarat, mentioned above, have any excavations been carried out and so it is impossible to say about the nature of habitations of these people.

When and how the next cultural stage, technically called the Neolithic or New Stone Age, was reached in India, is not yet known. But this much is a fact. Owing to the vastness of the country and its varied geographical conditions,[1] some regions like Sind and the Punjab, received the impact of the higher culture much earlier than others. Thus, when copper or bronze was in general use and people lived in well-built houses at Mohenjodaro and Harrappa or Lothal[2] in Saurashtra, the inhabitants of Brahmagiri and Bellary[3] in the present Karnataka had probably begun to eke out their living by ground and polished fine grained stone tools. They lived under the age-old rocks overlooking green fields. These they cultivated with their stone hoes, and felled trees with axes, and dressed the timber with stone chisels and adzes. Whether these rock-shelters, which abound in the old crystalline formation of the present Bellary, Chitaldurg, Kurnool and, Cuddappah Districts of the States of Karnataka and Andhra, were in any way further protected from the wind and rain is not known. In some way, the open exposed sides of the rock must have been covered. Here again, for want of extensive work, practically nothing is known about the habitations.

Similar rock shelters are also found in the sandstone formations in Northern Karnatak around Badami,[4] and in the Banda,[5] and Mirzapur District, U.P. and in the sandstone formations in M.P. All these need, however, a very careful study.[6]

Further development also seems to be very uneven, owing to the same reasons mentioned above. How the people in the Indus valley came to live in well-laid out cities and houses of burnt bricks is not yet known. Recent work at Kot Diji[7] in the Bhalwalpur State of Pakistan suggests that the houses, in an earlier period before the rise of Indus cities, were built with mud bricks. Their plan, the size and number of rooms are not yet known, because the excavations were limited in nature.

However, about 2,500 B.C., Harappa and Ropar in the Punjab, and Mohenjodaro, Chanhudaro and a number of places in Sind, and a little later in north Saurashtra had developed regular cities. Of these the largest and hitherto the most well-known are Harappa and Mohenjodaro. The former "appears to have had a circuit of not less than three miles" over the fromer banks of the Ravi, the latter, on a branch of the Indus, seems to have been a rectangular city 800 ft. (243·8 m) wide east to west and 1,200 ft. (365·7m) north to south, the whole divided roughly into blocks of equal size. Since Harappa is very much spoiled by brick robbers, not much evidence of the layout of the city remains. But its other remains, particularly the granary and traces of fortifications, supplement those from Mohenjodaro. This gives a fairly good picture of an Indus city,

1. Subbarao, B., *The Personality of India*, Baroda, 1958.
2. *IAR, 1957-58* and earlier numbers.
3. Subbarao, B., *Stone Age Cultures of Bellary*, Poona, 1948.
4. *IAR 1955-56*, p. 5.
5. *Ibid.*
6. For their paintings and age see Gordon, D. H., *The Prehistoric Background of Indian Culture* (1958), pp. 98-117.
7. Khan, *ILN*, May 24, 1958, p. 866.

some 4,000 years ago. These are our first cities. And even though the idea may have been borrowed from the earlier and in some ways more advanced civilizations of Western Asia, still the ultimate product is typically Indian. Like the much later Greek citics, the entire city of Mohenjodaro was laid out in chess-board-like fashion with north-south and east-west running roads, and several small lanes, each cutting at right angles the principal thoroughfares. Unlike the contemporary cities of Sumer, the houses of the rich and the poor—one and all—were built of *pucca* burnt bricks and mud bricks as wall. Each house had at least three rooms, including a central square and a bath room. Between two or more houses there was a well. Each of these houses was provided with an earthen pipe and refuse jars and these were connected with a covered drain on either side of the road. Thus these 4000-year-old houses were not hovels, as were many houses in West Asia at this date, or as they are today in many large cities in India and outside. The houses, though perhaps bereft of any architectural or surface decoration and hence drab, "aesthetically miles of monotony", were hygienic and provided with 'the modern' sanitary conveniences. The city had a large public bath and granaries. Thus in every way it compared well with the city of today, or with a Greek or Roman city of 2,000 years ago. Likewise it appears from very recent excavations that citadel or acropolis—a part of the city where the king or the prince and the aristocracy lived—was protected with a mud brick rampart, having watch towers.

While an advanced city civilization flourished in the Indus Valley and in the Punjab and Saurashtra, the rest of India, it appears, was still passing through different stages of a Stone Age Culture. In fact, nothing was known about it until 1947. Recent work,[1] in the Ganga-Yamuna Valley at Hastinapura and Kausambi, at Patna and Vaisali in Bihar, at Nagda, Ujjain and Maheswar in Central India, at Ahar in eastern Rajasthan, at Prakash and Bahal in Khandesh, at Somnath in Saurashtra and at Nasik and Nevasa in the north Deccan and at Piklihal and Brahmagiri in Karnataka has revealed the existence of a people or peoples who, slightly later than the Indus Valley civilization, by 1500 B.C.,[2] lived in a Copper-Stonc Age Culture. Thus, barring Kerala, Tamil Nadu, coastal Andhra, Orissa and Assam,[3] we may say that the whole of India was witnessing the dawn of civilization. The regions, just mentioned, were away and isolated from the main centres of communication. Hence, it was much later that they received the touch of higher way of life.

However, save Nevasa (to a small extent) and Maheshwar-Navdatoli, everywhere the excavations have been on a very small scale. So it is not possible to know the plans of houses at this period, except at Navdatoli. First, something about the method of

1. See *IAR 1953-58*.
2. The earliest is 3503+128 B.P.=1503+128 B.C This is based on the Carbon-14 dates for the Chalcolithic layers at Navdatoli kindly supplied by the Physics Department of the Universty of Pennsylvania in September 1958. However, this date relates to the third phase, the earliest may well go back to 2000 B. C.
3. So far no remains of this culture have been found in Bihar but there are indications that it will be found. Hence Bihar is not mentioned in this list.

construction. Burnt bricks were probably known. This is indeed surprising in view of the fact that this was the most common material throughout the Punjab, Sind and even in some parts of Saurashtra in an earlier period. Nothing perhaps indicates better the change in tradition and the cultural *milieu* than this sudden and radical change in the building material. Whoever the new comers or the Chalcolithic inhabitants were, they did not make and know the use of kiln-made bricks (though they made excellent pottery and even used the brick-like burnt debris as a floor).

Mud-bricks have been used at Nagda. But the most common method was to plaster the interwoven bamboo screen resting against a close set wooden or bamboo wall with clay in which some husk and cowdung, etc., might be mixed. This was then white-washed with lime.[1] The floorings, made with a bedding of gravel or black and brown soil were stamped, smoothed and made insect-proof by a thin layer of lime,[2] or in the earliest period with cowdung and yellow clay. Thus, the rooms, round, square or rectangular and varying between 15 and 12 feet (4·57 to 3·6 m), looked spick and span as in a modern hospital. How thesemud and timber houses were roofed is not definitely known. Since no tiles in any form have been found, and since similar huts today have a thick grass and reed roof, sometimes strengthened by layers of clay laid over a few criss-cross beams, it is possible that such huts at Navdatoli were similarly roofed in pre-historic times.

Every house at Navdatoli had a three-"mouthed" hearth or *chula*[3] made of clay and plastered with lime. The store room was lined with small and big earthern jars, the bigger ones resting on large, square, solid, decorated or round stands. Further excavations will probably reveal the plan of the entire habitation.

Sometime about the 7th-8th century B.C. the art of brick-making was re-discovered. These were mostly unbaked, but the very recent Kausambi evidence suggests that even baked bricks were made (and used in the revetment). Iron first probably came into use at this time. Who introduced it is not yet known. But certainly it was due to new cultural impacts. It was the introduction of iron that led to the formation of the earliest large empires—the sixteen *Janapadas*, Magadha leading and dominating all because of the exploitation of its rich iron deposits,

This led to the rise of new cities, now once again built with bricks, but of a much bigger size than in the Indus Civilization. Excavations at Taxila, Ropar, Hastinapura, Kausambi, Ahichchhatra and at Vaisali, Pataliputra, Rajagriha, even down in Bengal

1. *IAR 1957-58*, p. 30; Sankalia, H. D., "New Light on the Aryan Invasion of India : Links with Iran of 1,000 B. C. discovered in Central India", *ILN*, September 20, 1958, p. 478 and Sankalia, H. D., Subbaras, B. and Deo, S. B., *Excavations at Maheshwar* and *Navdatoli*, Poona and Baroda, 1958.
2. The practice of plastering clay floors with lime goes back to the houses in the hitherto known *first* city in the world, namely the Pre-pottery Neolithic Jericho, now proved to be at least 8000 years old, See Kenyon, Kathleen. M., *Digging up Jericho* (London 1957), p. 55.
3. Exactly indentical hearth has been found in Period I of the Chalcolithic Culture at Ahar in S. Rajasthan

and then at Ujjayani and Maheshwar in Central India have brought to light remains of early cities. Of these some idea may be had of the plan of houses from Kausambi and that of a city from Taxila, elsewhere the excavations being too small to reveal any plan.

Kausambi, on the Yamuna, 32 miles (51.2 Km) south-west of Allahabad, when fully excavated[1] will not only rival Taxila in supplying us the picture of a city whose beginnings go back to the 8th century B.C., but with its moat and encircling protection wall over 3½ miles (5.7 Km) in length and provided with bastions and watch towers, will give idea of a city (-state) in the Ganga Valley from the 6th century B C. to 2nd century B.C. So far only a large monastery and a part of the city are exposed. These indicate the kind of civic life people had at this period. In the earliest phase (*c.* 700 B.C.) as well as in the first five phases of Period II, which is associated with the NBP, the houses had mud-walls. Around 400 B.C. appear the first brick structures, and the first road with bylanes. The houses were built on either side of the road on the *Catuhśālā* principle. The rooms grouped around a courtyard were also provided with verandahs. Some of the houses had two sections. It is conjectured that the section adjoining the road formed the male apartment, that on the rear being reserved for the women-folk.

If any site has yielded some idea of town planning in ancient India, it is Taxila. For at least 4 to 10 cities were built here between the 5th-4th century B.C. and 6th century A.D., until it was finally destroyed by the Hunas and never re-built. But, above all, it is the one site which has been extensively excavated, over a period of 20 years. Hence it is that even a glimpse of the city before the arrival of the Indo-Greeks in the 2nd century B.C. and subsequent to it, can be had from Sir John Marshall's excavations. Of the first city he[2] says that that the lay-out was irregular and haphazard, in contrast to the symmetrical chess-board-like plan of the 2nd city. One of the most important streets, which approximately ran north and south, was fairly straight, with an average width of 22 feet (6.6 m). Other streets were, however, narrow, their width varying from 9 ft. to 17 ft. (2.70—5.1 m) and following winding courses. The lanes were narrower still, so narrow, that two persons would find it difficult to walk abreast. Here and there, for the convenience of traffic and other purposes, small open squares were provided. Further, to protect the corners of houses from damage by passing carts and chariots, wheel-guards were set up by erecting rough stone pillars at the corners of buildings.

The houses[3] were also irregular in plan, the principle underlying their design was of an open court with rooms on one or more sides. There were two such courts in well-to-do houses. and they had probably more than one storey. On the ground floor, the rooms. about 15-20 in number, were small, because they were probably occupied by servants, whereas rooms facing the streets probably served as shops. The courts were usually paved either with rough flags or river pebbles or their floors consisted simply of beaten earth.

1. *IAR*, *1953-54*, p. 9; *1954-55*, p. 16; *1955-55*, p. 20; *1956-57*, p. 28; *1957-58*, p. 47 and G.R. Sharma, *ABIA* for *1948-53* (1958), pp. xxxix-xi,
2. Marshall, John, *Taxila* (1951) Vol. I p. 89.
3. *Ibid*, p. 92.

There were no regular windows, but rooms on the ground floor opening on to a court or street took the form of narrow-slits. How these houses looked when standing can only be imagined. Probably, as in the North-West today, their walls were mud-plastered and white-washed with lime and provided with wooden balconies and flat roofs. That the roofs were flat is evident from the complete absence of tiles of any kind.

Since no wells have been found within the city, it is presumed that water was fetched from the Tamra nala outside the city, or from wells in the low lying suburbs. However, each house had at least one soak-well for sewage purposes, while drains were provided to carry off the surface water. Though this does not seem to be a universal feature, it is uncertain whether there was a systematic drainage for the city.

In the 2nd century B.C. the Indo-or-Bactrian Greeks laid the foundations of a new Taxila.[1] It was at a site, now called Sirkap, across the Tamra nala. And for three centuries it remained in occupation during the rule of the Greeks, Sakas, Parthians and Kushans.

"The site selected by the Bactrian Greeks for their new city embraced part of the extreme western end of the Hathial spur together with a small sharply defined plateau on its northern side, the whole bounded by the Tamra nala on its western side and by the smaller Gau nālā on the north and partly on the east. Thus, from every point of view it was just such a site as might be expected to appeal to a Hellenistic town-planner, who required first and foremost, a considerable space of level ground, if he was to design an effective lay-out of streets and buildings on the schematic chess-board pattern which was then in fashion; in the second place, a backing of low defensive hills, some part of which could be brought within the city's perimeter; and in the third place, the presence of one or more streams alongside the walls to ensure a steady supply of water and at the same time increase the strength of the defences".[2]

It is also conjectured by Cunningham as well as Marshall that as in Greek cities

1. Similar thing happened at Charsada or ancient Pushkalavati, near Peshawar, where the recent work by Sir Mortimer Wheeler—a fine aerial photograph—has brought to light a well laid out city of the first centuries B.C.—A.D. See *ILN*, February 7, 1956 pp. 232-34.

2. Marshall, *op*. cit., p. 113. "The practice of dividing cities into rectangular blocks by streets crossing each other at right angles was first introduced into the western world in the fifth century B.C. by Hippodamous of Miletus, who planned the Peiraeus at Athens and the cities of Thurii and Rhodes. Following in his footsteps Dinocrates laid out Alexandria on still more ambitious lines. A notable example of this type of town-planning, is the excavated city of Priene. cf. M. Schede, *Die Ruinen von Priene*, Abb. 10, 11, 13 and Rostovtzeff, *A History of the Ancient World*, Pl. LXXXV, No. I where there is a graphic picture of the lay-out, after A. Zippelius. For an illustration of Selinous in Sicily, also laid out on the same principle cf. Daremberg et Saglio, *v*. p. 781, and fig. 426. It is probable the Śākala(mod. Sialkot), the capital of Menander was also laid ont on the Greek chess-board pattern, cf. *Milindapanha* I, I (S.B.E., XXXV, p. 2 and 1, 34 and 330 sqq., where the cities described were in all likelihood *Yavana*, not Indian, as assumed by Coomraswamy, *Eastern Art*, II (1930), p. 209."

there was once an acropolis. Marshall was not able to carry out an extended excavation of the earlier Greek city, so that we cannot have a detailed picture of this city. What was laid bare were the plans of the late Saka-Parthian city. Of this he gives a vivid generalized picture.

".....we start by taking a general view of the buildings as they appeared in the first century A.D. and getting a proper understanding of their character. Let us imagine, therefore, that we have just entered the city by the North Gate and are looking down the long straight Main Street from the point whence the photo in Pl. 22a was taken. The date is A.D. 40 or thereabouts, that is, about the time when Apollonius of Tyana is said to have visited Taxila, and when Gondophares, the Parthian, was ruiling there. A decade has gone by since the great earthquake, and in the interval the city has been rebuilt, and its buildings are still looking new and more than usually spick and span. Most of them are whitewashed, but not a few are colour-washed, or partly colour-washed in yellows, blues, reds and greens, as buildings may still be seen in many a modern city of the Near and Middle East. Down either side of the Main Street runs a row of shops. They are small, single-storey structures, of one or two rooms, raised on a high plinth above the roadway and often with a shallow verandah or open platform in front. The rows of these shops are not continuous. At short intervals, their shadows are broken by streaks of sunlight from the narrow side-streets which cut from east to west in parallel lines across the city ; and here and there, too, between the shops can be seen sacred temples and shrines over-looking the main thoroughfare; for the people of Taxila are a devout people, and the monuments of their faiths are as conspicuous a feature inside the city walls as they are in the roundabout. One of these sacred memorials is on our immediate left. It is a stupa of the Jains (?) standing in the middle of a spacious court between Second and Third Streets, but all we see of the stupa is its dome and crowning spire of umbrellas rising above the surrounding wall. Then a couple of blocks farther on, but not more than 80 yards (73.15m.) away, is an imposing temple of the Buddhists—the biggest of its kind at Taxila—set well back from the road in another great court ; and in front of it the spires of two more stupas, which stand in the same court to right and left of its entrance. Opposite to this temple at the corner of Block C is still another stupa, while three others are visible rising above the shops farther up the street, two on the left in Blocks F and G and one the right in Block E, their graceful domes and spires making a pleasing contrast with the flat roofs around them. Beyond them, in the distance, the royal palace stands out, white and gleaming, against the rugged hills to the south.

At the back of the shops and shrines, and reached usually through entrances in the narrow side-streets, are the private dwelling-houses of the citizens. A few right under the city walls are poor, mean habitations, occupied probably by the soldiers who guarded the ramparts, but most of them are large houses belonging to the rich ; for this is the fashionable quarter of the city. The royal palace itself is only 500 yards (457m) up the street and the people who live between it and the North Gate are of the governing classess, with attendants and slaves for whom accommodation is needed in their houses; people who can afford to wear costly jewellery on their person and to use diverse articles

of luxury imported from the western world. Their houses are flat-roofed and low, like bungalows; for since the great earthquake the old tall houses of Taxila have, for safety's sake, been cut down to two storeys. They cover, however, a big area of ground—on an average, some 15,000 sq. ft. (1393.5 sq. m) and contain a score or more of rooms on each floor. When we enter them we shall find that the rooms are grouped, as is usual in the east, about several open courts from which they derive their light and air, but the courts are sometimes no bigger than the rooms themselves and sometimes they take the form of mere wells or of passages between the rooms. Windows are provided in the outer walls of rooms overlooking the street but they are no more than narrow slits like those in the outer walls of monasteries.

Higher up the Main Street, as one gets near to the royal palace, the houses are rather more carefully planned and furnished with larger courts. Some of these, one may suppose, served as public offices, and in the interests of administrative convenience they would naturally be located in the vicinity of the palace. The palace itself (Block K) is like a glorified private house—planned, that is, on the same lines but on a bigger scale, and with more spacious courts and rooms. Its walls, too, are more massive and higher in proportion to their massiveness, so that one can see the palace from any part of the city rising well above the surrounding roofs."[1]

With regard to sanitation and drainage, there were covered drains down some, if not down all, of the side streets and small drains connecting with them the adjacent houses, "but there is no evidence of any drains either upon or underground, having existed at any time in the Main street, though there was a drainage culvert underneath the North Gate."[2] Hence, it is inferred that the house and side-streets were designed not for sewage, as at Mohenjodaro, but for surface water only. "What means were adopted for the disposal of sewage is not apparent. The old fashioned soak-well or refuse shaft had virtually ceased to be used after the transfer of the city from Bhir Mound to Sirkap; and so, too, had the larger kind of public refuse lines."[3] It is also to be noted that both, houses and street drains, were commonly constructed of limestone blocks, sometimes plastered on the inside. They were rarely of brick or slate.

In the east there were also a few cities and ports, though compared to the north of India, this region was colonised much later and consequently its development is believed to be late.

However, in the 2nd century B.C., Orissa was ruled by a powerful king, Kharavela, who soon became emperor of the east. No traces of his capital have hitherto been found, but near Dhauli and Khandagiri and close to Bhuvaneshwar, at Sisupalgarh have been unearthed the remains of a fortified town. Its beginnings are placed in the 3rd century B.C. In about the 2nd century B.C. a clay rampart was erected. Later laterite gravel was added to it. These were further strengthened by baked brick rivetments, and provided with gates.

1. *Ibid.*, pp. 140-41.
2. *Ibid.*
3. *Ibid.*

On the west coast in the peninsular India, only one site is partially excavated. This is Kolhapur. Here on the banks of the Panchagnga river were brought to light the remains of several brick houses—forming, as the explorations in and around Kolhapur demonstrate, part of an extensive similarly built city.[1] It seems to have risen up in about the 1st-2nd century B.C. By the early 2nd century A.D. when King Gautamiputra Sātakarni ruled in the Deccan, the city, or at least a part of it could boast of fine baked brick houses. These were built on well-laid mud-mortared pebble foundation. One of the fully cleared houses had three small rooms bounded by a long verandah-like room.[2] Similar plan of houses has also been noticed at Nagarjunikonda. In one house was found a kitchen, with *chulas* (hearths) at one end, and built-in storage jar on the other. The area between these was paved with bricks and plastered with cowdung and clay. These houses were roofed with grooved terracotta tiles which were fixed on to the rafters with iron-nails. There were no traces of a soak-pit or well anywhere, it is likely that some idea of sanitary arrangements may be had from future extensive excavations.

One thing was, however, remarkable that between two houses, as at Sisupalgarh in the east, a regular or irregular passage of about 2 ft. (0.60m) was left.

Foundation of Houses

This subject has already been dealt with by me.[3] Since then, some further information is available, which has been added, and the whole republished here. The one point which emerged from the earlier discussion was that the builders were guided by two things. First, the availability of the raw material, and secondly, the adaptability to the environmental conditions—climatic, geographic, etc., of each case.

This has been well demonstrated by Marshall[4] in the case of the Saka-Parthian city of Sirkap at Taxila. The foundations of large structure were taken down much deeper—to the virgin soil or rock—upto a depth 18—20 ft. (5.8 to 6m). as the houses of earlier period which were erected on shallow foundations, of a foot or two in depth, or on the debris of existing ruins, had collapsed owing to earthquake, probably about A.D. 20 or 30. Other precautions were also taken to strengthen the walls, by the use of 'diaper' in the place of rubble masonry.[5]

In the sandy plains of Sind, where stone was not easily procurable, at Mohenjo-daro for instance, bricks were usually laid in mud and occasionally in gypsum mortar, with foundations and infillings of sun-dried bricks.

In the adjoining regions of Rajasthan, at Sambhar in the former Jaipur State, in a site probably of the early Christian era, low foundation-walls were built of roughly cut blocks of Jhajhra stone, and over these were raised the brick walls. The floors enclosed by them were filled up with thick layers of fine sand. At another site, Rairh, in the same region, a thick layer of iron refuse was laid under the foundations to keep off the white

1. Sankalia, H. D. and Dikshit, M. G., *Excavations at Kolhapur* (1945-45), Poona, 1952.
2. *IAR, 1957-58*, p. 8.
3. *Ibid.*
4. Sankalia, H.D. and Dikshit, M. G., *op. cit.*
5. Marshall, *Taxila*, I, p. 138.

ants, etc. This is a very wise precaution in sandy areas, where this pest can cause incalculable damage in no time.

Where stone could be had easily, it was turned into proper use. The foundation or lower parts of the wall made of irregular blocks of slate or other large blocks of roughly dressed stones, and the upper parts were often built of mud, in Taxila for example, right from the Mauryan period.

So also Besnagar, ancient Vidisha in Central India, the foundation of the famous pillar of Heliodorus was very securely prepared. It extended to a depth of nearly 6 ft. (1.8m) beneath the base of the shaft and consisted of heavy slabs of stone and layers of laterite, *murrum*, black earth and concrete, well rammed. The pillar itself rested directly on the uppermost of the slabs, wedges of metal and stone chips being driven in between the two to maintain it in perpendicular position.

At Sanchi, which is close by, the Aśokan column was found to rest directly on the bed rock, and was mainatined in position by a packing of boulders enclosed in retaining walls.

The foundation walls of the *Vihara*, which was excavated in 1935-36, were constructed of hammer-dressed blocks of stone laid in clay and sometimes in clay mixed with pounded bricks.

In the Ganga plains, where stone was scarce, thick brick-walls of the Mauryan town at Bhita are seen to rest on an earthen rampart. At Sarnath the Dhamekh *Stupa*, the upper part of which was of stone, and the lower of bricks, was raised on a foundation of bircks embedded in clay. The stones were laid dry, but were held together in each layer by means of iron clamps.

How they solved the problems still further east, in the sandy alluvium of Bihar, studded with ponds and lakes, is beautifully illustrated by the several types of buildings —monasteries and *chaityas*—unearthed at Nalanda. Foundations of some buildings have been found at a depth of over 12 ft. (3.6m). from their ground level. These were then filled up with alternate layers of sand and bricks.

Unusual precaution was taken in the construction of Chaitya site No. 13. "The area comprising the mainshrine seems to have been excavated to a depth of 12 ft. (3.6m) below the then ground level for the purpose of laying the foundation of the *Chaitya* which rests on at 5 ft. (1.5m) thick layer of sand. The foundation consists of 23 courses of bricks in sand, 83 courses of bricks in mud mortar up to the floor-level of the shrine which was approximately 18 ft. (5.4m) above ground level. On this basement were raised the walls of the shrine chamber which were in double section and were 33 ft. (10m) in breadth. In order to strengthen the basement and to enable it to resist the outward thrust of the huge mass of masonary over it, the *pradakshināmārga* 25 ft. (7.6m) wide was excavated down to the virgin soil and cross walls were built in it at intervals of 24 ft (7.3m). For the basement with the outer walls of the *pradakshināmārga* three compartments thus made being filled in with alternate layers of pure earth and concrete with earth.

At Kolhapur two or more sides of a house were raised on a foundation prepared by embedding large pebbles, at least in two layers of sticky clay. The latter was either regur or brownish river mud. Over this clay and pebble base, the brick walls were erected. In order to strengthen the building, and to have a hard level surface, the intervening space between the four walls, was at times covered with roughly dressed stone slabs, and the whole filled up with layers of sticky clay mixed with lumps of laterite upto a height of three to four feet (0.90 – 1.20m) above the foundation.

It was then felt by me that this method of preparing the foundation was a purely local—Deccan—feature. However, similar pebble and mud foundation was also met with by us in the houses of about the same period at Maheshwar.

ROOFS OF HOUSES

At Mohenjodaro, Harrappa and other sites of the Indus Valley Civilization, it appears that the houses were flat-topped. So also at Taxila, where Marshall found no traces of tiles, whatever. At Navdatoli the roofs of the Chalcolithic houses seem to have been made of several layers consisting of leaves and reeds placed on bamboo matting and further covered with clay.

However, at a number of other sites in Rajasthan, the Ganga Valley Central India and the Deccan the houses seem to have sloping roofs made with bamboos or timber rafters. On these were fixed, with iron nails, flat, convex-ended and bifacially grooved pottery tiles.

SANITATION : WELLS, DRAINS, SEWAGE, SOAK-PITS (SEE MAP)

Just as we cannot understand the growth of town-planning in India, we also have no clear idea of its constitutent features, such as sanitation, i.e. conscious attempt on the part of man—civic sense—to have an assured source of clean, healthy, water for drinking and proper arrangements for drainage—for the removal of rain water, as well as used water after bath, etc.

That the people of the Indus Valley Civilization enjoyed all these—built up wells and a separate bath or washing room in each house, supplied with closed brick drains, pottery pipes laid in houses and outside with a view to carrying away the refuse from water-closets[1] and pottery jars to collect these—is well-known. How and whence these highly advanced sanitary conveniences were attained is still a mystery. It is equaly mysterious how this secure knowledge was lost later. Of course, it is equally true that no post-Harappan site is fully excavated But what little we know now from the excavation of several sites all over India, it is definite that people had not reached that stage of civilisation in town-planning as well as in sanitation which the people in the Indus Valley enjoined. But it is not that they had not thought of such conveniences, as in numerous villages in India today.

From about the 6th century B.C., we find that while drinking water might have been obtained from wells, or more frequently, from the nearby river or rivulet or streem

1. These are exactly of the modern type, but without the 'flush'. One such is found in the Harappan site at Lothal; outside India in Sumer and Crete of the Minos.

(as at Taxila, for instance), a definite and hygiene-arrangement was made in every house for the disposal of sewage. Though the evidence from Ropar, Hastinapura, Mathura, right upto Tamluk in the east, Ujjain, Maheshwar, Prakash, Nasik, to Arikemedu in the far south is fragmentary, in the sense that we have no proper idea about the location and distribution of these soak-wells in the house and streets, because of small-scale digging yet from Marshall's account of these wells in the early dwellings on the Bhir Mound at Taxila,[1] we can have a fairly good idea. He remarks, "Sewage, on the other hand, was thrown down the the private soak-wells which were mantained in every house. As a rule there was one such soak well in each courtyard and one for the privy,[2] bathroom, wash-house or kitchen. These soak-wells are peculiar to the settlements on Bhir mound, where they go back to the earliest times. With one exception, they are not found at Taxila after the coming of the Bactrian Greeks. They are of several kinds.

(i) The simplest and doubtless the earliest form is a circular shaft about 2 ft. 6 in. (0.76-0.9 m) in diameter and sunk to a depth of 15 ft. (4.5-6 m). The type is without any lining, but in order to prevent the walls caving in, the well was filled with rough pottery vessels (*lotas, gharas* and the like) turned upside down, between which sewage could percolate and soak into the earth. Soak-wells of this type were in use only during the earliest settlement on the Bhir mound,

(ii) In the later setlements the walls were lined with limestone and *Kanjur* to depth varying from 8 to 18 ft. (2.4-5.4 m) or more below which the shaft narrowed and was left unlined. Their inner diameter varies from 2 ft. 2 in. to 2 ft. 10 in. (0.63 to 0.86 m) at the top. This second type of semi-*pukka*, semi-*kaccha* well was sometimes filled with vessels, sometimes not. From one of them, 164 vessels were taken out—60 broken and 104 intact—comprising *gharas*, *chatis*, *lotas*, cooler and pots of various other forms. These vessels filled the whole shaft of the well from the top to a depth of 12 ft. 6 in. (3.8 m) below the stone lining, that is, to a depth of 25 ft. (7.6 m) or thereabouts from the surface.

(iii) The third type of soak-well, partly lined in the same way with stone masonry, is rectangular in plan instead of circular, but inasmuch as only one specimen of this type has been unearthed, it may be inferred that the square form was not found as satisfactory as the round one.

(iv) The fourth type, instead of being stone-lined, is constructed of earthenware rings. Only four specimens of this particular type have been found, three of which are in the northern section of the area west of First Street. A good example is the one illustrated in Pl. 6 b which appears to be referable to the third stratum, though it may be

1. A well has been found at Charsada in a dwelling house of the 4th Century B. C. Its exact purpose is unknown.
2. The use of such wells as latrines has been observed by me at Nargund in Karnataka. Even near Maheshwar, Central India, it is so. In Surat these are called "*khāl-kuvā*", and were, and still are, used as soak-pits.

later. It stands at the north-west corner of square S and is composed of fourteen well-packed rings, of which nine at the bottom are about 25 in. (0.63m) in diameter by 6 in. (0.15 m) in height, while the five at the top, representing perhaps a later addition, are of the same height but only 21 in. (0.53 m) in diameter.

(v) The fifth type is constructed of large earthenware store-jars (cf. 'Pottery', ch. 23, No. 1) set one above the other, with holes knocked through their bottoms (Pl. 6c). It is noteworthy that these soak-wells frequently occur in pairs in close juxtaposition one to the other. The explanation of this may be that they were intended to be used alternately, one being left to dry, while the other was in use. The frequent presence of large water-jars found *in situ* close by them suggests that many of them were located in bathrooms and kitchens".[1]

Soak-wells constructed of a succession of earthenware vessels have also been found in Mesopotamia.

Outside Taxila, where stone was not easily available, these soak-wells are either of baked terracotta rings or bricks. At times, as at Prakash, we have a succession of earthen jars, with their bottoms knocked off. In short, excepting the stone-lined, and square type of soak-pits or wells, the remaining three types have been found at numerous places in India (See Map.)

Two further observations may also be made. To avoid seepage and thus avoid contamination of the habitation surface the foundation of these wells was taken right into the virgin soil. Secondly, in the construction of brick-wells, in order to make them round, wedge-shaped or trapezoidal bricks were used, as for instance at Ropar, Nevasa and Nasik. Thirdly, as Marshall remarks, these wells seem to have been out of fashion round about the Christian era, as data from Taxila, Maheshwar and Nasik show. If this phenomenon can be confirmed from future work, these wells may well become a type-object of Indian culture between 5th century B.C. and Ist century A.D.

At Taxila, as well as at Ujjain, Virampatnam near Pondicherry and Chandraketugarh (West Bengal) the houses as well as streets and lanes were provided with surface drains, to carry off rain water. At the former site[2] these were made of limestone and *Kanjur*, and at times the drains were lined with slabs of slate. The same material was used for paving the bath-rooms. In addition, small drain-pipes,[3] having spigot and faucet joints (as at Mohenjodaro and in the palace of Knossos in Crete), made of earthen-ware, were supplied in some houses. Thus, besides Taxila, at a number of other places from about the 3rd century B.C. all the essential principles and features of modern

1, Marshall, *op. cit.*, Vol. I, pp. 94-45. It may, however, be mentioned that at some places e.g., at Nasik, the wells for drinking water are similarly made and are of the same dimensions.

2. *Ibid.*, p. 95, II. Pl 6, d; *IAR, 1956-57*, p. 30 aud J. M. et G. Casal, *Site Urbain et Sites Funeraires des Environs de Pondichery* par.1956 (Paris, 1956), p; V, B, and P. VII C; and *IAR, 1956-57*, p. 30.

3. Drain pipe, Pl. 127, No. 209. I. p. 95.

hygienic town-planning were known and practised. How all these disappeared from the succeeding phases of Indian civic life cannot be explained, though we do meet with occasionally open brick-lined gutters.

Whether the sanitary feature characterized by soak-pits was introduced by the Grey Ware or the N.B.P. Ware people cannot be said for certain. Their earliest occurrence in the north and in the Gangetic Valley is about the 5th-6th century B.C.; and about the same period or a little later in Central India, and the Deccan. Their spread is perhaps coterminus, and to some extent, co-extensive with the NBP. It may be a special contribution of the NBP Culture, as Sharma thinks.[1]

Caves and Monasteries

By the 3rd century B.C., with the spread of Buddhism, a large number of caves began to be excavated in the Deccan, U.P. and Orissa. The earliest are near Bodh Gaya in the Barabar Hills. In the Deccan, the ledge and the sloping sides or escarpment of the terrace-like hills were quite suitable for such a purpose. In the beginning these caves were small and very often consisted of single, simple undecorated cells. But soon these developed into magnificent establishments. These were not only large but had very often one or two storeys. These, thus reflect the living conditions of the time, and illustrate what we miss by the absence of buildings of bricks, mortar and wood.

Essentially the plan was the same as first noticed at Mohenjodaro, Kausambi or at Taxila (and now at Nagarjunakonda). A central square or courtyard around which the rooms of the monks were arranged. Each of these had a stone bench and a niche for an oil lamp. These rooms as well as the front of the main cave could be closed by a wooden door. This was loose and inserted into the grooves made into the rock. Though the individual cell was very simple, the main hall was decorated with ornamental pillars and friezes and the walls and ceilings were painted.

Karla and Junnar and later Ellora provide us instances of large storeyed caves. Small staircases cut into the rock lead up to the second storey.

The monasteries at Nalanda in Bihar were built on the same principle. These indeed follow the plan observed in one of the monasteries laid bare at Kausambi, namely the one known as Ghoshitārāma. The Buddha is believed to have visited the site and the foundation of the monastery goes back to this period (6th century B.C.). From that date it went on expanding until the 6th century A.D., when it seems to have been destroyed by the Hūṇas. It had passed through no less than 16 re-constructions. In the last but one stage, the monastery consisted of a square quadrangle lined with cells, with a verandah on the inner side enclosing the main *stupa* (This is traceable to the 8th phase), and several smaller *stupas*. The whole establishment, as at Nalanda, was surrounded by a boundary wall.

To revert to Nalanda, these are indeed huge establishments. The monastery No. 6 was 150×120 ft (45·7×36·5m) and had a large number of rooms. The walls were also very

1. Sharma, G. R., *ABIA*, Vol. XVI (1948-53), Leiden 1958, p. XL

thick, on which were raised three or four storeys. Thus each building accommodated between 500 to 1,000 students. For those times these were certainly very tall buildings. They could boast of broad, not very steep-stepped, staircases,[1] as we have in modern buildings.

No remains of palaces have been recovered. Except, however, at Taxila, where Marshall, from the very large and extensive sets of rooms, thinks that these belong to a palace. But it would appear from a study of the *Harshacharita*[2] that they were constructed on the courtyard plan. For, these gave light, air, privacy and security. And for the same reason, particularly the first two, that all our large buildings today follow the central courtyard plan, Thus the tradition has survived for over 5,000 years in India; whereas outside India, it is found in the earliest city in the world: the first Neolithic town at Jericho,[3] dated by Carbon-14 tests to 6000 B.C.

Fortifications

Until the advent of the A-bomb and aerial bombing, fortification was regarded necessary.[4] In India right from the Rigvedic times[5] we have references to fortified towns or villages, with or without an encircling moat. Pliny, in about the 2nd century A.D., spoke of 30 walled-towns of the Andhras. Thus, the existence of fortifications round a city right from a very early period was there. But the imperfect excavations at Harappa and Mohenjodaro, and the absence of excavations on the early and late historic sites, had inclined to give a wrong picture of a city in ancient India. This is being removed now. (See Map)

The "Citadel" area at Harappa[6] is now found to have a mud-brick rampart. Originally this might have been built as a protection against floods. But later it was used as a system of defence against enemies. This mud-brick rampart was 45 ft (13·7 m) wide at the base, which tapered upwards. To stop it from collapsing, this mud-brick wall was supported by an external revetment of brick, 4 ft (1·2 m) wide as now extant.

This rampart was equipped with rectangular bastions at frequent intervals.

At Mohenjodaro, there is a similar high mound on which now rests the Buddhist *stupa*. This is also called the "Citadel Mound". As at Harappa there is a mud-brick

1. See Sankalia, H. D., *The University of Nālandā*, pp. 217-219. Such easy stepped staircase has also been found at Sisupalgarh, *AI*, No. 5, Pl. XXXVI.
2. Agrawala, V. S. *Harshacharita*. A Study (in Hindi), pp. 203-15; pls. 26-27. Even the later Mughal palaces and Maratha *Wādās* follow the same principle.
3. Kenyon, Kathleen, M., *Digging up Jericho* (London 1957), p. 54. Here the courtyards, as at Mohenjodaro, were used for cooking.
4. The literary evidence has been reviewed by Dikshitar, V. R. R., *War in Ancient India*, 1944, pp. 247-57.
5. Even during the last war these fortifications have proved to be of great importance. See Field Marshall Ehrich Von Manstein, *Lost Victories*, Chapter dealing with the Crimean Campaign.
6. Wheeler, Sir Mortimer, *Indus Civilization*, Suppement to the *Cambridge History of India* (Cambridge 1953), pp. 19-20. Fig. facing p. 16 and Pl. II & IV A

platform, which has been retained by a substantive defensive system. This was made clear when solid burnt brick towers were discovered in the 1950 excavation.[1] The earliest of these towers was 31 × 22 ft (9·4 × 6·7 m). It stood on burnt brick foundations and was originally reinforced by horizontal timbers 9 × 5 in. (22.8 × 12·7 cm); now represented by slots in the fan of the building.[2]

Whether the parts of the city outside the Citadel both at Harappa and Mohenjodaro were fortified or not has not been investigated.[3]

It appears that such a mud-brick rampart, a protection either against floods or enemies, was a feature of the Indus or Harappa civilization. Similar mud ramparts have also been excavated at Lothal[4] (Saragwala, Districh Ahmedabad).

Such a characteristic feature, per-Aryan or Aryan, should have influenced the subsequent Indian Civilization, whether the people who destroyed the Harappa civilization liked it or not. This year's (1957-58) evidence from Kausambi shows that it did. For here, in Phase I (*c.* 700 B.C.), has been found a burnt brick revetment against a mud rampart, which recalls the one at Harappa. This revetment is extant upto a height of 43 ft (13·1 m), the bricks being laid in English bond. The first 30 courses of bricks had 2½ in (0·06 m) plaster of mud. Later, the defences were raised by another 16 ft (4·8 m) and guard rooms were added.

If the capital of the Vatsas had such a grand and strong wall to protect it, that of Pradyota, Ujjayini, also boasted of a very thick and broad rampart from the earliest period (*c.* 700-500 B.C.)of the city's foundation.[5] It is nearly 200 to 245 ft (60·8 to 74·5m) broad at the base, nearly 42 ft (12 8 m) in height and approximately 2 miles (3·2 km) in length. Along the riverside, it was further reinforced with wooden logs and sleepers in an elaborate manner. This mud rampart had a surrounding moat, about 152 ft (45·6 m) at the top.

There was also a moat and rampart wall at Māhishmatī, as a specific reference to it has been made by Kālidāsa. However, none have been excavated there as yet, though the topographical features at Maheshwar argue strongly in favour of one.[6]

The ancient city of Pataliputra (modern Patna) was, according to Megasthenes,[7] surrounded by a ditch nearly 600 ft (182·88 m) wide and 30 cubits (18·2 m) deep. This girdled a wooden wall. It had 572 (watch) towers and 64 gates. Since the modern city of Patna is built on the remains of the earlier cities, it is impossible to lay bare the plan and the fortifications of those times. Excavations have, however, brought to light only the

1. *Ibid.*, p. 28, Pl. VI B.
2. *Ibid.*, Pl. VII.
3. *Ibid.*, p. 34.
4. *IAR, 1956-57*, and *19 57-58*,
5. *Ibid.*, p. 20, and *1957-58*, p. 34 Fig. 9, Pl. XLIA.
6. Sankalia, H. D., Subbarao, B. and Deo, S.B., *Excavations at Maheshwar and Navdatoli.*
7. McCrindle, J.W., *Ancient India as described by Magesthenes and Arrian*, Culcutta (1926), pp. 65-68.

remains of an 84-pillared hall.[1] These indicate that Megasthenes' description of the ancient city is not all exaggeration.

But, perhaps, even before Pataliputra, was Rajagriha or Girivraja.[2] Though endowed with natural defences with hills all round, "at a very early period these were re-inforced by a high rubble wall running at the top of all the hills, with a circuit of about 25 miles (40·2 km)", whereas the natural passages between hills were turned into gates.

In view of this, what Marshall regards as one of the Indo-Greek characteristics of the city of Sirkap at Taxila, does not seem to be true. He said that "a backing of defensive walls" was considered as essential by the town planners. Rajagriha seems to have had this feature before the Greeks.

Further down the east coast, in Orissa and in Bengal, traces of fortified townships have been excavated at Sisupalgarh, Jaugada[3] and Chandraketugarh.[4]

The fort at Sisupalgarh,[5] near Bubaneshwar, was almost square in plan and nearly half a square mile in area. It had 8 large gateways, two on each side. Each gate was 13 ft. (3·9m) wide. It has been ascertained[6] that in the earliest phase (Phase I *c.* 200 B.C.) the defences consisted of a massive clay-rampart. As extant, it is 25 ft. (7·6 m) high and 110 ft. (35·5 m) wide at the base. Later, in Phase II, a 4-6 ft. (1·2—1·8 m) thick layer of laterite gravel was added on the top of the clay rampat. Still later, in Phase III, two brick walls, 26 ft. (7·9 m) apart and 2½ to 3½ ft. (0·76 to 1·06 m) thick, were built at the top of the laterite gravel and the space between them was filled up with clay and earth.

The story is then continued at Nagarjunikonda, an extensive city built by the Ikshvakus, on the Krishna in the present Guntur District, Andhra. Pradesh Here protective burnt-brick walls with gates have been discovered on the river side.[7]

Of the early medieval period, we have examples of fortification at Sirpur[8] in Madhya Pradesh, and at Gangaikondacholapuram,[9] District Tiruchirappalli.

In the north, besides Harappa, we know only of the fortification at Taxila, and now at Charsada.[10] The stone wall, which surrounded the Sirkap city, was approximately 6000 yard or 3½ miles (5·3 km) in length, with a thickness varying from 15 ft. to 21 ft.

. For recent excavations, see *IAR, 1953-54*, p. 19. (70 of these pillars were discovered by Dr D. B. Spooner in 1912).

A slightly smaller pillared-hall, having 48 limestone columns, but much earlier (2nd-3rd century A. D.) than the later S. Indian temples has been found at Nagajonakonda. See *IAR, 1957-58*, p. 9.

A still smaller hall of 16 tall columns was noticed at Sisupalgarh. *Ancient India*, No. 5, Pl. XLB.

2. Ghosh, A., "Rajgir—1950", *AI*, No. 7, p. 66 ff.
3. *IAR, 1956-57* pp. 30-31
4. *Ibid.*, p. 30.
5. Lal, B. B., "Sisupalgarh—1948", *AI*, No. 5, p. 64, Pl. XXVII.
6. *Ibid.*, p. 74 ff.
7. *IAR, 1956-57*, p. 36. The writer has noticed a brick wall round the ancient of Vanavāsi, now in Karnataka State. There was also a rampart round Vadnagar in N. Gujarat.
8. *Ibid., 1955-56*, p. 27.
9. *Ibid*
10. *ILN, op cit.*, p. 232, fig. 5.

6 in. (4·5 to 6·55 m). Along the western edge of the plateau it has an irregular alignment, broken by various salients and recesses, but on the north and east sides it is quite straight, and from the south-east corner of the plateau proceeds, in the same straight line, up the steep side of the northern ridge of the Hathial spur 160 ft. (43·6 m), in height, then dips down across a depression, traverses a second ridge and depression, and so ascends to the summit of the third and highest ridge towards the south, which is just on 300 ft (91·44 m) above the general level of the plain. From this point it formerly turned in a westerly direction and descended the rocky edge of the ridge to its western corner; after which it took a sharp turn to the north, then bent west again round a prominent bluff above the Tamra nala, and so returned north along the western scarp of the plateau. Within its circuit the city wall thus embraced three rocky and precipitous ridges of the Hathial spur, besides an isolated flat-topped hill, which rises in a gradual slope from the bluff above referred to, and the low level plateau to the north.

The height of the fortification walls was probably between 20 and 30 feet (6 and 9 m). The bastions were perhaps higher.

The position and number of city's gateways are doubtful. Though it seems certain there was one in the northern wall, and another on the east.

GHATS OR PIERS

Since all the early settlements were on rivers, we may expect, at least from the Chalcolithic times, a built-up area for ascending and descending into the river for daily washing and occasional journey by a primitive boat. As, however, excavations have so far been limited in extent at no Chalcolithic site—Mohenjodaro, Harappa or Ropar—or at any other has been found a *ghāt*. At Lothal, it is said, has been recently discovered something like a *ghat or pier*[1] it being assumed that the site was situated on the ancient (now silted up) arm of the gulf of Cambay.

During the historical period, perhaps the *ghāt* known today is the one unearthed at Nagarjunaikonda on the Krishna.[2] This *ghāt* has very symmetrical and low steps. There was also a pier at Arikamadu.[3]

The picture of houses and habitations drawn here is admittedly sketchy. This is for want of sufficient information. The latter can be had when excavations on a scale larger than attempted hitherto are undertaken, and their results speedily published. Only then the few distribution maps which are here appended will have more "flesh and blood."

1. What looked like a wharf to the excavator Shri S. R. Rao might not be so according to some recent observers.
2. *IAR, 1955-56*, p. 25, Pl. XXXVIII
3. Casal, *Fouilles de Virampatanam* (1949), Pl. X.

CULTURAL SIGNIFICANCE OF SADDLE QUERNS

Saddle and rotary querns of stone, called respectively *Paṭo* and *Ghaṇṭi* in Gujarati, *Pāṭā* and *Jāte* in Marathi, form an essential part of an Indian household. Few, however, realize their significance in the evolution of our material culture. It was intended originally, to note the Indian evidence, old and new, and fix up a tentative chronology and classification of their types, and point out the cultural significance underlying the chronolngical and regional variations. Modern data, however, is insufficient. Response to inquiries in different parts of India, regarding the existing types was not very good, and so the idea of reconstructing modern regional typology in querns had to be deferred for the moment. Therefore, the evidence from excavated sites in India, and its bearing on cultural evolution is dealt here.

Out of the two kinds of querns, the rotary (*Ghaṇṭi*, *Jāte*) is certainly of a much later date. Excepting the potter's wheel, says Curwen,[1] "it is the earliest piece of machinery to replace the oscillating movement by a continuous rotary." As will be pointed out below its present form has been traced hitherto only upto the Roman period *c.* 100 B.C.

The other, saddle-quern, goes back to the Neolithic and even Mesolithic times. Of course, its form was not the same throughout. It varied from age to age. These variations in forms also suggest changes in cultural habits.

Small, roundish or rectangular pieces of stone (generally sandstone, or such coarser, gritty types of stones), flat on the surface, but with a slight depression in the centre, and keel-shaped or at times convex on the underside, are found in a few Mesolithic sites. From the associated objects and the smallness of their size, it is evident that these flat pieces could have been used only for grinding stone or bone tools, pigments, or some such purpose.

In the next succeeding stage, the Neolithic, when man had begun to stay at one place, make clay pots, grind his stone tools, domesticate a few animals and practise primitive agriculture, the quern slabs become larger. They have a grinding surface which is more or less concave longitudinally, while from side to side it may be flat or else slightly concave or even convex.

The upper stone, used for grinding and crushing, was at times a simple pebble, round or flat. Later it was dressed, and made into a regular muller.

1. Curwen E. Cecil, "Querns", *Antiquity*, XI (1937), p. 137-38.

These types of querns have been recovered from several sites in Europe,[1] Central Asia,[2] Iran,[3] Iraq,[4] Palestine and Egypt[5] and other parts of Africa. In India the earliest datable finds are of the Indus sites. They are reported to be found at all levels, and are made of hard, igneous rocks or sandstone. Two main types are available.[6] In type I, the surface is more or less flat, so that a smaller stone was pushed or rolled to and fro over it. In type II, there was probably a small regular depression on the surface. And a smaller stone was used as a pounder, which later made a large cavity in the stone. Marshall[7] thinks that since a large number of querns are of the second type, grain (mostly wheat) was pounded rather than rubbed. Mackay, however, holds that type I was used solely for grain, and the type II for pounding herbs and spices. Querns of type I, since they were found in kitchens and grain store rooms, as at Tepe Hissar in N.E. Iran,[8] or on baked clay floors in kitchens in Central Europe and elsewhere, it is presumed, were primarily used for grinding grain.

But this common and widespread presumption perhaps needs a little modification. It is obvious that such flat-topped querns can hardly be a convenient material for grinding dry grain. Probably the grain was kept in water overnight, and then ground the next morning, as is the custom in India for certain dishes of different kinds of lentils and rice. Even now in Egypt,[9] the same custom prevails. The person then handles the quern, exactly as it is shown in an Egyptian statuette of the 5th dynasty (*c.* 2500 B.C.), or a pottery figure from Harappa[10] or in the panel from Sanchi.[11]

Such a way of grinding, however, will not yield dry flour. Consequently the method of preparing bread out of it will be different.

All the early Neolithic and Chalcolithic saddle querns, if used for grinding grain, could have been used in this way alone. For obtaining dry flour, probably large wooden or stone mortars were employed. A large hole for such a motar built into the brick floor was unearthed at Harappa[12] in 1946.

Stone mortars have also been found at Mohenjodaro, Tepe Hissar and at other Chalcolithic sites.

1. Childe, *Dawn of European Civilization*, pp. 155, 162, 138, 295, 248, 226. Perhaps not found at Knossos (Crete) as none are reported by Arthur Evans. In the Dniester and Dnieper basins querns were found on deliberately baked clay floors, along with ovens and pots.
2. Pumpelly, *Explortions in Turkesten*, Vol. II, p. 477, fig. 496.
3. *American Journal of Archaeology*, Jan. March, 1949 p. 51.
4. See footnote 8 below.
5. Caton-Thompson, *The Desert Fayum*.
6. Mackay, *Further Excavations at Mohenjodaro*, II, p. 392.
7. *Mohenjodaro and the Indus Civilization*, II, p. 456.
8. Schmidt, *Excavations at Tepe Hissar, Iran* (1931-32), p. 59, 72 and 298.
9. Garstang, *Burial Customs of Ancient Egypt*, p. 128 as quoted by Mackay, *Further Excavations at Mohenjodaro*, p. 393, f,n. 4.
10. *Annual Repoat, Archaeological Survey of India*, 1926-27, p. XXIII c.
11. Marshall, *The Monuments of Sanchi*, Vol. II, pl. LII c. Upper Panels of North Face in South Pillar of Estern Gateway.
12. *Ancient India*, No. 3, January 1947, pl. XXVVI.

These contrivances continued to be used in India and survived even after the invention of the rotary quern. When was the latter first used or introduced in India is not known.[1] In England earlier forms have been known from slightly earlier pre-Roman times, called Iron Age B. But soon the lighter and better types were evolved after the arrival of the Romans. Stratigraphic evidence from excavations at Kolhapur show that the rotary quern was perhaps unknown in the Deccan until the Bahmani or the preceding Silahara-Yadva Period. This was later proved to be a wrong surmise. Now the earliest welldated specimens go back to the 1st century A.D.

In early historical period (Maurya-Gupta), however, a saddle quern of slightly different type was used. It had four legs, with a projection on one end of the flat upper surface. Technologically and in practice this is a more intelligent contrivance than the one used previously or now a days. When something is being ground, the dish can be placed below the projecting quern-end, so that the meal or other matter will fall directly into the dish. It has not to be first gathered up by hand, as in the ordinary type, and then placed in the receptacle. The space between the four legs can be used for keeping the muller when not in use. In the ordinary solid type, now current, it is always a problem were to keep the muller. If placed on the ground, it rolls down. It has to be kept leaning against the wall.

What is remarkable is that at one time, before and after the Christian era, such an economical household quern was known and used all over India, as the following examples from Taxila, Rairh (Jaipur), Karvan (South Gujarat), Kolhapur and south India show.

When this footed type disappeared, and the solid one became fashionable cannot be said for certain. My inquiries show that practically everwhere in India only solid type is used nowadays. Why this change was brought about and who did it is a matter for archaeological and anthropological investigation; as also the question of the introduction of the rotary quern in India. It is supposed to have been introduced in England by the Iron Age B people between 100 B.C. and 50 B.C. Recent excavations in Karnataka show that iron was introduced in south India about the same time. And if an Indian example of rotary quern is not earlier than 2nd century B.C., then it may have some connection with the spread of iron-using people. Such commonplace things as querns, as pointed out by Curwen, deserve a careful study.

After the above was sent to the press reports of work in Asia Minor were available. The evolution of saddle and the rotary querns there is very interesting, particularly the connexion of the proto-type of the latter with the introduction of iron.

1. The earlist are supposed to be of the 2nd Century B. C. (Marshall, *op. cit.*,) though none have been seen by the writer.

In Anatolia (Asia Minor) as shown by excavations at Alishar Hüyuk, the primitive saddle quern survived from *c.* 3,000 B.C. until about 1200 B.C., represented by layers I-IV. But a significant change is noticed in layer V. This is assigned to the post-Hittite period, when iron had come into use. In the specimen we may discern the the proto-type of later rotary querns. In the centre of one side of a roughly rectangular rock is a rectangular depression, becoming conoid toward the base, where is a somewhat irregular hole. The central depression is connected with two sides of the mill by grooves, one of which is either deeply incised at the end or perforated. The opposite face of the mill, usually somewhat convex, is the grinding surface.[1]

1. Schmidt F. E., *The Alishar Huyuk*, Seasons of 1928 and 1929, Part I, p. 65, fig. 76 and Part II, 76 fig. 116.

THE PHILOSPHY OF ARCHAEOLOGY IN INDIA OR THEORETICAL AND METHODOLOGICAL APPROACHES IN ARCHAEOLOGICAL INTERPRETATION IN INDIA

I

A proposition such as this may outwardly seem irrelevant in the context of or background against which archaeology developed in India.[1] For in India, unlike the U.S.A. for instance, archaeology was initially developed by the British who relied heavily on the knowledge of the classics—Greek, Latin, and ancient history and not on the knowledge of anthropology. Nor was the knowledge of the latter really very necessary, because there they were facing or to interpret an ancient civilization, and not illterate or preliterate peoples of the newly conquered or colonized land. However, the very fact that the British were ruling over a conquered people had created a complex, an assumption that India could not have had a very ancient civilization, as ancient, for example as the Egyptian or the Mesopotmian, and what one saw of some significance in India was very likely derived from the Greeks and the Achaemenians. For these scholars history in the proper sense began with Alexander the Great. Even this assumption was of a relatively later age. Earlier it was believed that there was no history of India before the Muhammadan conquest in the 11th century A.D.[2] However, one must not be critical of such views. These are of the pioneering workers and belong to the historical process, and the conditions obtaining at the time when the views were expressed.

All the same, the assumption that India lacked in ancient cultures, rarely explicitly expressed, had governed the planning of much of the archaeological work in India, until the discovery of Mohenjodaro in the twenties of this century.

Naturally then, for well-nigh 50 years, what was discovered were temples, *stupas*, and mosques—religious monuments alone—were discovered and furthermore their preliminary classification was attempted. Behind these classifications there no doubt were some assumptions, not all necessarily right. After the leading workers and writers of the time, we may call them :

1. The study of Indian archaeology is more than a hundred years old. It covers a vast period of time. And according to its definition in India anything older then 1860 is an antiquity, and might be protectd. It is not easy in a short paper like this to do justice to all the view—assumptions or hypotheses—made so far. Only those which struck the author as remarkable or important have been dealt with here. But it is more than probable that many an important one is missed.
2. Raposn, E. J. (Ed). *The Cambridge History of India*, Vol. I Ancient India, Cambridge. 1922; also Fergusson, James and Burgess, James, *History Indian and Eastern Architucture* Vos I & II Landon, 1910.

1. The Cunningham School,
2. The Fergusson School,
3. The Havell School,
4. The Marshall School,
5. The Havell-Coomaraswamy-Zimmer-Kramrisch School,
6. The Codrington School, and
7. The Ghosh-Dhaky School.

The Cunningham School

General Cunningham was the first Director General of Archaeology in India. For explorations, particulary in north India, and identifying the monuments and sites discovered by him and his assistants, he had to rely heavily on the accounts of the foreign travellers[1]—Hiuen Tsang, and also to some extent on the scraps of Greek notices of India, preserved in Arrian and other early writers. This was because it was thought that few indigenous accounts were preserved, or that Indians possessed no written history nor did they care to record past events.

The Fergusson School

Furgusson[2] was one of the first to prepare a history of Indian architecture, based on the discoveries of monuments made by Cunninghan and others (though he was preceded much earlier by Ram Raz).

Born and brought up in the West, and not well-acquainted with Indian traditions, he broadly classified or grouped the various monuments after a linguistic and regional pattern such as :

(i) Temples of northern India (Indo-Aryan),
(ii) Dravidian temples,
(iii) Chalukyan temples.

Fergusson also thought that only the early Indian art was good. In later times it gradually decayed. He further came to the conclusion that Islamic art and architecture owed nothing to the Hindu, and that the former was aesthetically superior.[3]

The Marshall School

Sir John Marshall tried to correct this impression. He differed from Fergusson. He maintained that the Indian art and architecture showed a steady progress, not decline. But Marshall still believed like many earlier British writers that the Indians were primitive, for he said "this (steady progress) is seen.....in the artistic efforts of all primitive people".[4]

1. Cunningham, Alxeander, *CASR, Four Reports 1862-65*, 1871 Preface IV.
2. He was also of the opinion that India had no history properly so-called, and that Indian Art in spite of its uniqueness, in spite of the fact that it was a living art, unlike the Greek and the Roman, could never reach the intellectual supremacy, or the moral greatness of Rome.
3. Fergusson and Burgess, *op. cit.*
4. Rapson, *op. cit.*, p. 618

THE HAVELL SCHOOL

E. B. Havell was perhaps the first to strike an altogether diffcrent note. In his serveral works, but particularly in his *The Ideals of Indian Art* he tried to show how history of Indian art and architecture was a history of national life and thought, how all its essential and vital creative impulses were derived from indigenous movements and here not dependent upon outside forces and contacts, and how there was no fundamental antagonism between Hindu and Islamic beliefs, which have often been assumed to exist, and moulded their art and architecture. Above all, the distinctive quality of Indian Art is its value in the synthesis of Indian life.[1]

Probably the pendulum was swinging the other way, almost to nationalistic thinking at moments. From right condemanation and a little, halting, appreciation of some aspects of Indian art, critics began to discern a meaning and a significance where perhaps there was none, or at least, very possible not intended by the artist himself.

Some of Havell's views find further elaboration, amplification, clarification and refinement in Coomaraswamy, Zimmer and Kramrisch. Kramrisch's writings are oftener surcharged with metaphysical interpretations of Indian art; one truly wonders at the artists' knowledge stature and limitations. True, sacred texts are cited in support of this approach,the texts beginning with the Vedas, the *Brahmaṇas* and the like. But the monuments to which these texts are applied are themselves much later.[2]

As Bose[3] pointed out long ago such profound penetration in the minds of bygone architects is not only rare, but the results are incapable of scientific verification. At the most one can carry out a scientific study of the outer forms, according to the canons of architecture prevalent in each region.

THE CODRINGTON SCHOOL

K. de B. Codrington, who also approached the subject more sympathetically than Fergusson and earlier writers, attempted primarily a regional and dynastic study and tried to ascribe the various sulptures and monuments within definite spatial limits and dynastic rules.[4] This line of approach was also followed by most subsequent writers on Indian art and architecture including the author for the study of the monuments in Gujarat.[5]

Codrington in fact gave a new direction for the interpretation of Indian art. His basic assumption, like that of Hanser,[6] is that art, through all the different periods, has

1. Havell, E. B. *Indian Architccture*, 2nd Ed., London, VII, 1927.
2. Coomaraswamy, A.K. *History of Indian and Indonesian Art*, London, 1953; also Kramrisch, Stella, *The Art of India through the Ages*, London, 1955.
3. Bose, N.K., *Canons of Orissan Architecture*, Calcutta, 1931. However, in our desire to be scientific, we must not be biased. For where the truth is no one knows. Hence Coomaraswamy and Kramrisch might be right !
4. Codrington K. de B., *Ancient India*, London, 1926.
6. Sankalia, H.D., *The Archaeology of Gujarat*, Bombay, 1941.
6. Hanserd, Arnold, *Social History of Art*, 1957.

been reflecting the contemporary social life. He made a modest beginning by a brief study of the Ajanta murals.[1] Later Sivaramamurti showed that life depicted in the Amaravati carvings[2] can, to a great extent, be corroborated by literary evidence. Naik, too, analysed the evidence from Nagarjunikooda scluptures from this point of view.[3] In this field V. S. Agrawala and Moti Chandra[4] have made significant contribution. In recent years Dhavalikar has made an intensive study of Ajanta paintings andthe Sanchi[5] reliefs and showed that the life depicted in them is not the result of the artist's fancy, but that it can be substantiated to a considerable extent by the contemporaneous literary evidence and confirmed by the accounts of foreign visitors.

THE GHOSH-DHAKY SCHOOL

Later writers have, however, found that this line of study was defective. Ghosh,[6] for instance, indicated the inherent incongruity of a system of dynastic criteria and advocated regional basis for stylistic groupings. Dhaky who approaches monuments in a biologist mould has tried to formulate broad sub-regional groups, as for instance, his Maru-Gurjara style of temple architecture. He would relate a certain group of temples in Gujarat and Rajasthan built between the 11th-13th century A.D. to a regional style and to the codes of architecture composed in this region.[7] This is but one example of the current trend of thinking in historical archaeology.

Until 1930, prehistoric archaeology was in the background. After the discovery of Mohenjodaro and Harappa, Burkitt's interpretation of the south-east Indian Stone Age material, and de Terra and Paterson's work in the Punjab, (that) prehistosic archaeology really began to be taken seriously. Here there was more scope for assumptions because the discoveries were to be explained. First in the chronological order of discoveries comes the Indus civilization. The various assumptions are :

(i) The Indus-civilization is pre-Aryan and perhaps Dravidian.

(ii) The civilization is connected with the Mesopotamian.

1. Codrington K. de B., "The Culture of Mediaeval India as illustrated in the Ajanta Frescos" *Ind. Ant.*, Vol. LIX. 1930.
2. Sivaramamurti, C., *Amaravati Sculptures in the Madras Govt. Museum*, Madras, 1976,
3. Naik, A.V., 'Studies in the Nagarjunukonda Sculptures', *BDCRI*, Vol. II, 1940.
4. Moti Chandra, *Bhāratīya Veśabūṣā* (Hindi) pp. 483-94, Sam. 2007.
5. Dhavalikar, M. K., *Life in the Deccan as depicted in the Ajanta Paintings* (Ph. D. thesis, Univ. of Poona). 1963; also *Sanchi—A Cultnral Study*, 1965.
6. Ghosh, A., "Some Observations on Dynastic Appellations", *Seminar on Indian Art*, Varanasi, 1962.
7. Dhaky, M.A. "The Chronology of the Solanki Temples of Gujarat." *Journal of the Madhya Pradesh Itihas Parishad, III*; p. 27-28, 1961; "The Brahmānasvami Temple at Varman" *JOIB*, XIV, pp, 387-82; "Kiradu and the Mahā-Gurjara style of Temple Architecture", *Bulletin of the American Academy of Benares*, I, Varanasi, pp. 35-45; "The Genesis and the Development of Māru-Gurjara Style of Temple Architecture", A paper read at the Seminar on Indian Temple Architecture, Varanasi, 1967; "The Old Temple at Lamba and Kāmeśvara Temple at Auwa" *JASB*, Vol. VIII, No. 3, 1966; and "Some Early Jaina Temples in Western India" *Shri Mahavír Jain Vidyalaya Golden Jublitee Volume*, Bombay.

(iii) The civilization was destroyed among other factors (things) by the gradual change in climate in Sind, the Punjab and Baluchistan.

(iv) Later, Wheeler thought that it was destroyed by the Aryans.

(v) Raikes and Dales inferred that it was destroyed among other causes by the rise in river level.

(iv) Fairservis attributes the destruction mainly to the environmental factors.

VINCENT SMITH SCHOOL

There was one more assumption, first made by Vincent Smith, aad later upheld by Marshall, that south India had no Copper Age.[1] It had passed straight from the Stone Age into the Iron Age. After the first scholar we shall have to call it the Vincent Smith School.

In the field of pure prehistory, that relating to Stone Ages proper, the there principal assumptions were :

(i) The Early Stone Age could be grouped into two ;
  (a) The Soan or the Pebble tool culture ; and
  (b) The handaxe or the Madras Axe Culture;
  The former was sought to be related to South East Asia.

(ii) The Handaxe Culture was thought to have originated in south India by de Terra. Behind this there was the simple and assumed belief,

  (a) that there was no pebble tool culture in Peninsular India (or even if there was one, it was later and developed by contact with the Soan Culture);

  (b) that the Handaxe culture had migrated to the north from around Madras, because here the tools were believed to have been found in earliest geological deposits ;

  (c) that the former was non-violent and vegetarian, the latter war-like and non-vegetarian.

In all these prehistoric studies there is great scope for climatic interpretations besides the functional, geographical, briefly called environmental archaeology.

While de Terra and Paterson[2] based their views on the climate, on the occurrence or non-occurrence of glacial deposits in the Kashmir and Himalayan foothills and the Potwar plateau, Burkitt relied for his interpretation on the landscape witnessed on the south-east coast.

ZEUNER SCHOOL

Later Zeuner based his interpretation of past climate in North Gujarat on the study of river deposit as well as on the presence of rhinoceros in the microlithic deposits.[3] This trend of thought or interpretation first started by Zeuner is being

1. Rapson, *op. cit.*, p. 615.
2. de Teraa and Paterson T.T., *Studies on the Ice Age and Associated Human Cultures*, Washington, 1939.

followed by a number of prehistorians including the author. Hence we may call this the Zeuner School. With this school is also associated another, made more familiar or current by me, that the river beds are gradually getting more and more restricted, for the younger deposits lie against the older ones at lower depth.

RICHARDS-RAO SCHOOL

Other important assumptions are :

1. That the development of cultures, civilizations and empires in India has been influenced by geographical factors.

   This principle first enunciated by F.E. Richards, was beautifully developed by the late Dr. B. Subbarao.[1] This is, therefore, called the Richards-Rao School.

2. It was also assumed by Prof Von Haimendorf that some of the surviving preliterate tribes in India, particularly in the south, could be correlated with the various Stone Age Cultures. Thus the Chenchus of Andhra Pradesh with the Palaeolithic.

2a. In prehistoric times the Indian Ocean was an unitary 'culture pool', and the various Stone Age cultures of India were introduced from Africa through the transfer of ideas.[2]

2b. The Middle Stone Age Culture was largely confined to areas of intermittent rainfall, avoiding area of low rainfall (for example Western Rajasthan) and heavy rainfall (Bombay area).[3]

3. The Megaliths in the South were sought to be exaplained in two ways :

   (a) either as the work of people who had migrated from Europe;

   (b) or as the product of people who had come from South-East Asia.

4. So also the Neolithic or Polished Axe Culture. One school of thought derives it from Iran or Western Asia.[4]

4a. Another school from the east.[5]

5. Likewise the birth or the existence of the Chalcolithic cultures in Central India and the Deccan may be explained.

   a. either as the result of culture-contact or actual migration of people from Western Asia, particularly Iran.[6]

1. Subbarao, B., *The Peronality of India*, Baroda, 1958.
2. Wheeler, R.E.M., *Early India and Paikstan*, 1959, also *The Indus Civilivation*, Cambridge, 1968.
3. Allchin, Bridget, *The Stone-tipped Arrow*, London, 1966.
4. Allchin, F. R., "*Piklihal Excavation*", Andhra Pradesh Government Arch. Series No. 1, Hyderabad.
5. Wheeler, 1952, *op. cit.*, p. 89.
6. Sankalia H.D. "Contacts between Central India and Iran or Westen Asia between 1700 B.C. ?—1200 B.C. *Artibus Asiae* XXVI, pp. 322-32, 1964. and Allchin, *op. cit.*,

b or as indigenous cultures.[1]

6. At the root of the assumptions (4 and 6 is of course the basic assumption first made by Breasted and then elaborated by the late Prof Gordon Childe and then slightly modified by Braidwood that the Fertile Crescent—its enlarged versions—is the Cradle of Civilization. And from here by slow diffusion civilizing influences spread east and west.

The Traditional View

In this connexion one should also mention the traditional Indian view, which unlike the Mesopotamian, regards India as the home of the Vedic and the later civilizations. Until recently there was no archaeological evidence to substantiate this universally held assumption. But during the last five years cultures earlier than or contemporary with the Harappan cultures have been unearthed in Sind, north Rajasthan and recently in Central India. Surface Indications suggest that some of these might be traced as far east as Kausambi or even Varanasi, in Uttar Predesh and that these might be one of the source of the highly developed Harappan Civilization.

Guha-Sewell and Sen School

There is also an archaeo-anthropological assumption or assumptions. So many anthropologists basing their inference on the study of human skeletal remains have come to very far-reaching conclusions about the racial types of the people inhabiting the site or sites excavated. Of this most important, of course, are the views of Guha and Sewell on the composition of the population of the Indus Civilization. Then there are many others well-known to all the archaeologists. Recentiy this has been rightly challenged by Shri D.K. Sen, Director, Anthropological Survey of India.[2] Briefly, we shall call this the Guha-Sewell and Sen School. Sen says, "From a very brief analysis of a few selected traits which are generally employed by the anthropologists for racial analysis, we no doubt obtain some idea of the sample represented by the skeletons found at Harappa. Thus, judging from the above means we find that the Harappans were long-headed and high domed groups, the sexes not differing markedly in these characteristics. They had medium-high faces and orbits of medium dimensions. While the population was markedly broad-nosed as a whole, the females of series show relatively more flattend noses than their male counterparts. The palates of both sexes were broad generally, with the females registering a somewhat broader aspect than those of males.

On the whole the population was reasonably homogeneous, and females formed part of the population. Further since there is no marked heterogeneity in the material at our disposal, the hypothesis that the group is formed by more than one discrete

1. Krishnaswami, V. D. "The Neolthic Pattern in India" *AI.*, No. 16, 25-44.
2. Sen, D. K., "Ancient Raees of India and Pakistan" *AI.*, Nos. 20-21, pp. 178.-205.

population must be held as not proved. Under the circumstances, to postulate several racial stocks or elements going into the formation of the Harappans should be considered as presumptuous and the result perhaps of wishful thinking, and not as a statement based on scientific reasonings."[1]

II

Discussion Historical Archaeology

We now briefly discuss the implications or grounds behind the various assumptions mentioned above, and their justification.

Though at this distance of time, after nearly a hundred years, we are apt to question the assumptions made by Cunningham and Fergusson, still *historically* they were not quite unsound. Little was known of India at that time. Whatever was discovered then had to be explained and classified, and what Fergusson did, seemed rational: a broad regional classification based on a quasi-racial or linguistic pattern. And if he applied European or western standards to what he had before him in India, it was because indigenous ones were yet unknown, though Ram Raz[2] had much earlier, attempted to interpret the south Indian temples with the help of *Śilpasastra* and the living tradition of temple architecture. A corrective was necessary, and this came from Havell, Coomaraswamy, Zimmer and Kramrisch, Shri Aurobindo and V. S. Agarwala. But all these scholars and philosophers one might feel, overstepped the limit of historical critisism, and read a meaning in the works of art and architecture which may not always and so much be there. Their appreciation appears subjective as was that of Fergusson purely formal or objective. As Bose said their views are not capable of scientific verification.

Ghosh, Dhaky and others showed the drawbacks of purely dynastic approach to monuments first clearly enunciated by Codrington and adopted by Sankalia and other workers. Larger regional affinities, it was shown, surpass the comparatively smaller limits set by dynastic geography. However, a small temple by itself should not be regarded as necessarily early in the development of a particular style of architecture. Its size might have been perforce small, because the ruler who patronized it could not afford to build a large temple either because he was busy waging wars or that his kingdom had not sufficiently developed and hence was not prosperous enough. Thus a fuller investigation than hitherto attempted seems called for.

Again it is also a problem how far artist-architect was guided by the existing written or traditional canons and how far he was free to experiment. For a literary or slavish reading of the *vāstuśāstra* or *śilpaśāstra* works on art and architecture would mar all future development. As in law, codification follows the existing practices.

While one can justify some of the earlier views on the appreciation of Indian art, one cannot so easily defend Marshall's view, bracketting India with other primitive

1. Sen, *op, cit.*, p. 202.

2. Ram Raz, *Architecture of the Hindus*, 1835.

cultures. For he wrote nearly fifty years after the first systematic discoveries were made in India, and both the Europeans and Indians had written about the origin of Indian Culture. We can attribute this veiw, as also the latest one by the late Sir Leonard Woolley[1] to the inborn or inherent prejudice of the Westerners against things Indian or Eastern. And above all, to their respect for the modern material civilization and incomprehension of the ancient civilization in which the things and thoughts spiritual had higher values in life. Fergusson's view that Indians were morally and aesthetically inferior to the Romans and Grecks respectively stemmed from a similar bias.

III

Prehistoric Archaeology

The earlier views of Smith and Marshall about the non-existence of Copper Age in south India were certainly based on inadequate knowledge or ignorance to remove which few systematic attempts were made then. This is particularly regrettable when Marshall had truly grasped the significance of the casual discovery of a few pictographic seals from Harappa, illustrated them and said that one could not disregard the existence of the knowledge of kiln-made bricks in India a thousand years before 300 B. C.[2] Still he did nothing to follow up this knowledge, and waited for the chance discovery at Mohenjodaro.

The assumptions made by de Terra and Paterson about the climatic conditions in the Punjab have some (much) basis in geology, though one would question their assumptions, particularly that of Paterson, in evaluating the life and culture of the Soan Men. To regard this Man as non-violent and vegetarian simply because no large cutting tools like cleavers and pointed tools like handaxes are found in the collection is to assume too much.[3] In the first place, we do not have a full picture of their tool-kit; secondly, among the pebble tools, there are some with broad cutting edge (unilateral and bilateral oblates) and pointed tools (pointed oblate). More over, as pointed out by Lewis Mumford,[4] there has been an over emphasis on tool-using and tool-making.

In the non-glacial tract of the Peninsular India, the chronology and the environment of Early Man have been closely linked with the climatic changes of the Pleistocene[5] It has been assumed that because of the glacial and intergiacial climatic episodes in the Himalayan and in the higher latitudes, the Peninsula experienced wetter and drier climatic cycles during the Pleistocene. The inferences regarding the climatic changes have been mainly based on the field characters of the sedimentary bodies of the Pleistocene alluvium and on the aggrading and eroding tendencies of streams. All these inferences of the climatic changes seem to have been based on very inadequate studies.

1. Woolley, Sir Leonard and Hawkes, Jacquetta, *History of Mankind*, London, p. 406.
2. Rapson, *op. cit.*, pp. 617-18.
3. Sankalia, *op. cit.*, pp. 36-40.
4. Mumford, Lewis, *The Myth of the Machine*, London, 1967.
5. Sankalia, H.D., "Middle Stone Age Culture in India and Pakistan" *Science*, 146, pp. 365–75 and Zueners, *op. cit.*

In the first place it has never been made clear about the exact nature of wetter or pluvial and drier or interpluvial climates and these terms seems to have been used without giving sufficient thought to modern hydrology, climatology and the geomorphic history of the region. The equation of coarser gravelly bodies and finer silty alluvium with either the wet or dry climate seem to be merely based on earlier worker's intuitive ideas rather than on actual objective field and laboratory investigations. Secondly, aggrading and eroding phases of the streams have been thought to be due to wetter and drier climates respectively without ever knowing the past vegetational pattern in the river valleys. In recent years some of the streams from western Maharashtra have been studied. It now seems that the earlier presumption that the region under consideration was tectonically stable in the Pleistocene needs complete reconsideration.

It has been found that :

(i) the present streams are in rejuvenated state;
(ii) these streams were dominantly aggrading and eroding in the Upper and pre-Upper Pleistocene respectively;
(iii) in the very source-regions of many of the streams the rock-cut terraces have been very well preserved;
(iv) the thickness at the aerial extent of the older or Pleistocene alluvium preserved varies in different valleys. Some of the valleys clearly indicate the presence of downward basins which favoured comparatively better preservation of the alluvium;
(v) Waterfalls occur at a particular level in some of the valleys; and
(vi) some of the scarp-faces flanking the valleys do not seem to be erosional.

All these observations suggest that the region might not have been tectonically as stable as thought so far and perhaps it was subjected to differential tectonic movements almost throughout the Pleistocene. Very recently the large part of the Westetn Maharashtra was rocked by a severe earthquake, the epicentre of which lay very close to the Koyna Project. A good deal of geological, geophysical and siesmological investigation have been carried out both by Indian and foreign experts. The exact cause of the earthquake has not yet been found. Some attribute the cause to tectonic movements, while some to the initiation of new igneous activity. These divided opinions of the experts only point to our very poor knowledge of the geological, especially tectonic, history of the region.

Thus unless our knowledge of the tectonic history of the region attains certain degree of accurateness it might seem futile to build a climatic history of the Pleistocene on shaky foundations.

This criticism is indeed right. In justification of the assumptions it can only be said that every one of them is (or was) provisional. Each assumption needs to be supported by geological and palynological knowledge. But these as well as others in the field of protohistory are necessary to give some explanation of the existing observations. These

should really serve as incentives to further, more exacting research. Thus Raikes'[1] hypotheses, admirable as they were initially, have been questioned by Possehl[2] and Lambrick[3] and will always be suspect unless verified by further work. Wheeler's theory has already been shaken from its roots, and will be toppled down unless supported by more proof. The discovery of the Middle Stone Age (in Middle Palaeolithic) and the Upper Palaeolithic in India was due to the assumption of a gap between the Handaxe-Cleaver and Pebble Tools on the one hand and the microliths on the other. The gap was indeed too wide to be easily accepted. Systematic attempts to verify or correct the assumptions were necessary. Planned explorations have demonstrated how premature was Bridget Allchin's assumption about the distributional and environmental pattern of the Middie Stone Age Culture.[4]

The assumption that the Painted Grey Ware sites represent the Mahabharata sites and the former might represent a wave or group of the Aryans[5] led to a regular search in the Ganga Valley and it is still continuing, and now we have a much clearer picture of the culture-sequences in this region than 16 years ago.

Assumptions or hypotheses are the soul or pillars of all research. These should, doubtless, be judiciously made and must not be dogmatic. For very often, though very haltingly made on very inadequate data, they are passed on as gospel truth. Witness for instance the late Rev. Father Heras' identification of the Harappans with the Dravidians[6] and Wheeler's attribution of the destructlon of this civilization to the Aryans.[7] For as in Hitler's Germany, these two hypotheses have done incalculable harm in setting up the South against the North. Smouldering antagonism against Brahmins and so-called Aryan Brahmins have taken the shape of a political vendetta.

The present "search of our soul" is indeed brief. I hope to expand it at a later date.

1. Raikes, R.L., "The end of the ancient Cities of the Indus", *American Anthropologist*, 66 pp. 284-299; also Dales, G. F., 'The Decline of the Harappans, *Scientific American*, 214, (S) pp. 92-100.
2. Possehl, George, L. "The Mohenjodaro Floods" *American Anthropologist*, 69, pp. 32-40.
3. Labrick, H. T. "The Indus Flood Plain and the Indus Civilzation,, *The Geographical Magazine*, 133. pp. 483-94.
4. Allchin, B., *op. cit.*, p. 78.
5. Lal, B.B. "Excavations at Hastinapura", *AI*, No. 10 and 11, pp. 16-115.
6. Heras, S. J., *Studies in Proto-Indo-Mediterranean Cnlture*, I, Bombay, 1953.
7. Wheeler, "Harappa-1946; "The Defencesand cemetery, R "37", *AI*, 3, pp. 58-130.

ARCHAEOLOGY AND TRADITION

Archaeology in its quest of past cultures and sites has had to have some clues to start with. Until the development of aerial photography and electrical resistivity methods, one could have no idea of an ancient site, unless the remains were on the surface, visible to the naked eye or there was some account of it either in historical writings, religious literature, local legends or tradition. Even today before aerial photographs are taken of a buried city, or the electrical appliances tell us of a hidden treasure or tomb, the tradition (of the site to be photographed or tested) gives us some hint of what the site and its antiquities would be. Tradition, thus, has been and still remains an important source for discovering sites of past cultures and civilization, of history, in short, which is nothing but the race's memory of the past.

While tradition simply describes a site or an object, archaeology enables us to visualize it. This facilitates the forming of a correct picture in our mind. They are complementary to each other. A proper understanding of this relationship between archaeology and tradition has yielded brilliant and lasting results, wherever it has been attempted. However, a warning must be given. One should not expect too much, as it is said, from archaeology, nor too little. After all, except in some extraordinary cases, an archaeologist finds nothing but a few remains, very often broken and disjointed, from which he has to reconstruct a story. So the latter never takes the place of a real historical account.

The European Civilization was believed till the last century (till about 1860) to be not older than the earliest Greek, about 1000 B.C. The latter was known only from the works of Homer, but not much visual evidence was available except of the later monuments of the seventh-fifth century B.C. So what Homer had said was regarded as myth by scholars. But not by Heinrich Schliemann, a German youth. Fired from his childhood by the exploits of Greek heroes and the splendour of Agamemnon's palace and the beauty of Helen of Troy, he so chalked out his career that he could later dig at Troy, with his own money. This site is now known as Hissarlik in Turkey.

Schliemann's excavations at Troy and later at Mycenae on the Greek mainland were rewarded with inestimable treasure in the form of gold cups, ornaments and crowns, which were of unsurpassed beauty. He believed that he had succeeded in discovering the Homeric Troy. But soon it was realized by his colleague Dorpfeld, and later by other scholars, that what Schliemann had found was a much earlier Troy.[1]

1. This has now been conclusively proved by Dr. Blegen's excavation on behalf of the Cincinnati University, U. S. A. See Blegen, C. W., *Troy*, Vos. I-III (1950-53).

What was it ? Were any of these known archaeologically and in tradition ?

Yes. Homer himself while narrating the wars between the Trojans and the Greeks had twice referred to the numeroas cities in the island of Crete : "Fair, fat, well-watered, it has men beyond numbering and ninety cities."[1] Likewise, a few objects which were not typically Greek were found from Greece as well as Crete. But nobody could explain these curious looking vases and "archaeologists shook their heads distrustfully."

Crete is a large island at the centre of the eastern Mediterranean. It occupies no doubt a strategic position midway between the Asiatic mainland and south-eastern Europe. As Aristotle said, "It seems made by nature to rule over Greece. Its situation is remarkably fine. It dominates the sea around which all Greeks are settled." Thus it became a cradle of civilization, which enabled the Greeks to create the civilization which is inherited by Europe. It should naturally have received cultural influences from both these continents.[2] Greek tradition had endowed it with a hoary past. Of particular fame were the king Minos, the bull god Minotaur, the sacrifice every nine years, as a tribute to this god, of six youths and seven maidens, from which no Greek hero escaped, until Minos' daughter Ariadne was captivated by Theseus.[3]

These were all myths and fables until Arthur Evans purchased some land at Knossos and dug continuously there from 1900 to 1905. Elsewhere many others also did the same thing. This demonstrated to the unbelievers in no uncertain way the truth of the Greek tradition. In fact, in such a small island, scores of sites have been discovered, which proves that when Homer spoke of Crete having ninety-nine or a hundred cities, he was not exaggerating.

This civilization, best known from the palace at Knossos,[4] is called Minoan but since later found all over Crete and the Aegean is also known as Cretan or Aegean. Even the language of the Linear B script, has turned out to be proto-Greek[5] and not something else. Recent excavation in the earliest levels at Knossos has yielded very interesting and startling results, as pointed out before, viz. a very naturalistic human male figure, anticipating by some 2000 years later Greek art.[6]

Iraq or Mesopotamia has a history stretching back for several thousand years, though when its monuments and clay tablets were first discovered some hundred years

1. Glotz, Gustav., *The Aegean Civilization*, pp. 20—30.
2. The Asiatic influence was probably earlier as is being proved by discoveries at Catal Huyuk and other sites in Turkey, where houses, figurines and even wall paintings going back to 6000 B. C. have been found; *ILN*, June 9 and 16, 1962, pp. 934-36 and 976-78; and John Evans' latest excavation at Knossos itself, where certain figures from the Neolithic levels suggest an earlier Asiatic migration; *ILN*, July 6, 1961, p. 60.
3. Guerber, H. A., *The Myths of Greece and Rome* (1948), p. 149.
4. Evans, Arthur, *The Palace of Minos at Knossos*, Vols. I-III (1921-36).
5. Ventris, Michael, and Chadwick, John, *Documents in Mycenaean Greek*, 1959.
6. *ILN*, 1960, *op cit.*

ago, nothing at all was known of its hoary past, and wonderful civilization. It was indeed a tragedy that a country which led the World for some three thousand years, and where writing was first born, should so soon be out of Man's sight when the Medes destroyed the last neo-Babylonian empire in the seventh century B.C. For when two centuries later Herodotus, justly known as the Father of History, visited Mesopotamia, he saw nothing but sandy mounds, as the desert had taken possession of the fertile valley when once the efficient irrigation system was disorganized.

This land had two kinds of legends and traditions. The first was an account by an historiographer Berossos (also spelt as Berossus). He was a Babylonian priest and is believed to be a contemporary of Antiochus I (275 B.C.). He collected lists of kings of various cities who had ruled over Mesopotamia from the remotest antiquity. Since a flood had intervened and destroyed the earlier cities at Ur and other sites in southern Mesopotamia, he had grouped his kings as those who ruled before the Flood (ante-Diluvian) and after the Flood (Diluvian). Following a particular method of Babylonian reckoning, the reign periods of various kings and dynasties were given. But this to us looks fantastic and unbelievable.

Then there are "account tablets", on which are found inscribed chronicles and lists of kings compiled at various dates from the twentieth to the sixth century B.C. The tablets from the library of king Ashurbanipal (seventh ceutury B.C.) include a tablet of the twentieth century B.C. wherein the legend of the Sumerian Flood and Creation are inscribed.

Thus in Mesopotamia we have archaeological evidence and contemporary legends and much later ones collected by writers in the third century B.C. Each one of these is being substantiated partly or wholly by excavations. Thus at Ur, Sir Leonard Woolley found indubitable proof of a flood which, as he says, must have engulfed all the cities in the delta sometime before 3000 B.C. And it is this flood which might have been regarded as a Cosmic Flood by the later writers during the reign of King Ziusudu or Uta-napishtim (the Biblical Noah and Puranic Manu) and the king lists divided into two, as those who ruled before and those who came after the Flood.[1]

Even in matters of detail Berossus has been proved to be right when at Tell el' Obaid, near Ur, a foundation tablet of a temple of Ninhursag, bearing the name A-an-ni-padd, son of Mes-an-in-padd, son of Mes-an-in-padda of the First Dynasty of Ur, was found. For in the King Lists he is called the founder of the First Dynasty of Ur.

Further, Eridu, a town in the delta, was believed in Sumerian tradition, to be "the oldest town" and this has turned out to be right when no less than sixteen superimposed temples, all going back, to a period before 3000 B.C., (the earliest being dated to 4000 B.C.), have been exposed by excavation.

Hence even a scholar like Sir Leonard Woolley had to say, "It is never wise to reject traditions off-hand; in most cases they contain a modicum of truth, even if it be

1. Woolley, Leonard., *Ur Excavarions*, The Early Periods (1958), p. 18.

only a background for fiction...the king-lists (of Berossus) seem to me to get a measure of support from archaeological discoveries, but that support does depend on the identification of the Ur flood with that of the king-lists."[1]

EGYPT

Egypt was "discovered" by Napoleon, quite accidently when he led his famous expedition to snatch the British possessions in India. Thus until 1798 the glorious part which this country had played in the development and spread of early civilizations was forgotten after its eclipse during the later Roman Empire. However, here unlike Iraq, the ancient hieroglyphic script along with the embalming, survived long after the beginning of the Christian era.

The story of Egypt is not much different from that of Iraq. We have again traces of the earliest writing in Palermo stone, going back to about 3000 B.C., later inscriptions on temple walls and papyrus scrolls. Still a regular traditional account was compiled when Egypt came under the Greek political and cultural domination. One Manetho was commissioned by Ptolemy Philadelphos to collect all that was known of the Egyptian annals and translate them into Greek. He arranged the collection of records of kings and their doings into "Dynasties". And even now Egyptian historians and archaeologists use Manetho's division of Egyptian history into "Dynasties". No doubt, it is found to be incorrect in several particulars, but often it has given surprisingly accurate results. Thus the number of kings in each dynasty is usually correct, but their reign periods vary. But this is found to be not Manetho's mistake, but confusion in the original records from which he drew his material. Hence a historian like Hall goes to the length of saying, "we may be surprised at its accuracy, and be grateful for the fact that it agrees with the testimony of the monuments so much as it does".[2]

PALESTINE

However, there is no country other than Palestine which is so lucky as to possess such traditions as those of the Old Testament and numerous others, with which archaeologists have gone about since 1838 in identifying the ancient places and excavating them. But in a number of instances "facts brought to light by Palestinian archaeology agree with specific points in Biblical history. One of the principal services of the archaeologists to Biblical scholar has been the identification of modern sites with ancient towns mentioned in the Old Testament."[3] However, many other sites have been archaeologicaliy fixed without any evidence from inscriptions (for instance the Galilean town of Hazor).

Further archaeological history of sequence of many a site has proved to be in the fullest accord with the indications preserved in the Bible and Josephus ; thus the destruction by fire of Shiloh in mid-eleventh century B.C. frequently mentioned by Jeremiah has

1. *Ibid.*
2. Hall, H. R., *The Ancient History of the Near East*, (1936), p. 14.
3. Albright, W. F., *The Archaeology of Palestine*, Pelican books, (1945), pp. 216-27.

been attested to by excavation. Hence Albright concludes, "Biblical historical data are accurate to an extent far surpassing the ideas of any modern critical students, who have consistenly tended to err on the side of hypercriticism". And the net result is that not a single town in the (Biblical) list can be shown to be later than the tenth century B.C. (a thing we are slowly achieving in India in relation to the places mentioned in the Puranas). Very recent excavations by the Drew-McCormick expedition during the last six years at modern Nablus not only established the existence of Shechem, the very first city to be mentioned in Palestine by Biblical tradition, but a continuous history for 1,600 years, from *c.* 1900 B.C.—300 B.C., and connexions with the Hebrew Patriarchs Abraham, Jacob and Joshua.[1]

Biblical personalities still remain considerably vague, owing to the dearth of inscriptions; still with indirect evidence we appraise the careers of the Patriarchs or kings like David and Solomon better than before, for the places and other aspects of the material culture of the unified Israel can now be visualized, however imperfectly—the latest being the Wall of David of the tenth century B.C. and a still earlier building going back to 1800 B.C. at Jerusalem.[2] Excavations outside Palestine, for example clay tablets at Mari on the Middle Euphrates, help to understand the life and times of Hebrew Patriarchs like Abraham. And one may say that their narratives have a historical nucleus throughout, though the oral transmission many details were lost or recast "in more dramatic form emphasizing its religious and pedagogical values".

Archaeology has amply proved that the Hebrews were Semites who originally had settled in Mesopotamia and then migrated to Palestine. It has also shown the existence of a brief Indo-Aryan worship in Palestine and the regions around, about 1500 B.C.

AMERICA

Not only in the Old World, but even in the New, legend and traditions have been current, and these when systematically followed up have led to some astounding discoveries. Thus there was a story about the ancient Mayans of what is now known as Yucatan, that in their new city of Chichen-Itza there was a specially constructed "well" of sacrifice. Whenever famine threatened (and this seems to be frequent, almost every year) people threw young girls, prisoners and gems into the well to appease the rain god.

This story was recorded by a Spanish Jesuit, Diego be Landa, some 400 years ago. His book was discovered in a Madrid library by one Brasseur and published. But little credence was given to this and other fantastic looking tales. But one person called Thomson, like Schliemann, implicitly believed in this story of the "Sacred Well". So Thompson first began to dredge the well, which was not lets than 80 feet deep and nearly 200 feet broad. When this attempt failed, he himself, donning the diver's suit, went

1. *ILN*, August 10, 1963, p. 204,
2. Kenyon, Kathleen M., *ILN*, April 21, 1962, p. 619.

down into the well, and before the unbelieving world brought forth human skeletons, and not only some beautiful, but unique gold ornaments (once offered as sacrifice) which are metallurgical wonders. For, these ornaments were made of an alloy of gold, showing an advanced technique. Further they were proved to be imports, implying a transcontinental commerce, of which nobody had dreamt. Thompson found even an explanation of many curious stories about the well when he went into it himself, and hence said, "I mention these discoveries to show why I have come to believe that all authentic traditions have a basis of fact and can always be explained by a sufficiently close observation of the conditions."[1]

Thompson's work has now been continued with latest scientific aids.[2] "First a diving barge was lowered on to the surface as a base for the operations; and this was followed by a huge floating sieve with a hole in the middle. This hole took the upper end of the 10-inch 'vaccum-cleaner' pipe. The other end of this pipe was directed by an aqualung diver to appropriate parts of the bottom of the well. Through it, a great spout of water, mud, debris and ancient and modern artifacts was flung up, the water drained away and the solid object was retained by the sieve. Some 4,000 artifacts were recovered, including gold ornaments and the skull of a girl of about eighteen, with the bones distorted in the usual Mayan manner."

This and many other wonders are being thrown up by the New World, showing former contact with Egypt and India *via* South East Asia.

INDIA

India is a classic land of tradition. These are of three or four types : first there are the Puranas and the two epics – the Ramayana and the Mahabharata. All these purport to give a history of the world, not only of this cycle of existence (called *yuga*), but of the three earlier cycles, since the earth was created by the divine effort from the sea.

Besides these general traditional accounts each place of pilgrimage and many others-whether it be a tiny hamlet or an ancient village or city—has its own legendary history. These are called *Sthala mahātmyas* or *Puranas* (history of the place or site).

Foreign writers and visitors beginning with Herodotus, Megasthenes, Pliny, the author of *The Periplus* and Strabo,[3] provide us with another source of traditional accounts. All these have been used to some extent by writers of ancient Indian history.

But I will cite one only which like the Homeric account of Crete had begun to gain credence only with the help of archaeology. One of these had said that the Andhras had numerous towns, many of them walled. This was unbelievable. We could only think of Paithan and Nasik, though the latter had not given up its secret. However,

1. Ceram, C. W., *Gods, Graves and Scholars* (1952), p. 376.
2. *ILN*, Nov. 17, 1962, pl. facing p. 792.
3. These have all been collected and published by R. C. Majundar, *The Classical Accounts of India*, 1960.

during the last twenty-five years, with the emergance of pottery as a clue for the detection of ancient sites, scores of Śatavahana or Andhra sites in the Deccan and elsewhere have been discovered. To mention just a few, Tagara and Kondapura in Osmanabad District; Kolhapur; Junnar and several others in the valley of the Ghod river in Pune District; Nevasa on the river Pravara, Bahal on the Girna, Khandesh and Maheshwar on the Narbada in Central India.

But this process of discovering or identifying the Andhra Śatavahana sites mentioned by Greek writers is very recent.

The Chinese pilgrims Fahien, Hiuen Tsang and I-Tsing in a sense were the first "archaeologists". A thousand years had already elapsed after the death and birth of the Buddha. Legends, myths and traditions had grown up about the places connected with his life. Collecting all these, the devout pilgrims tried to locate these places, visited many of them, and in turn left us very interesting records of facts and fiction as existed in India between the fifth and seventh centuries about the Buddha and the places associated with nim.

For over a thousand years these traditional Chinese accounts about India were forgotten, until they were resuscitated by European scholars interested in India and the Orient.

So just a hundred years ago when archaeology was first born in India, General Cunningham, the first Director General of Archaeology, thought of no better, wiser and easier way to search for ancient sites than to take up the records of these Chinese pilgrims, particularly Hiuen Tsang. In fact he did what Thompson had done in Palestine in 1838. In several of his tours in northern India, he almost retraced the steps of this Chinese pilgrim. Thus were laid bare the ruins of numerous ancient sites, particularly Buddhist—Peshawar and Taxila, Sanchi and Barhut, Bodhgaya and Nalanda, to mention a few out of the hundreds discovered by Cunningham and his assistants. In fact, all the early Indian archaeological work was thus devoted to locating the sites mentioned by Hiuen Tsang and thus it was Buddhist in content.

What Cunningham did with the Chinese records, Aurel Stein attempted with the Greek accounts for identifying the route and sites connected with Alexander's march to the Punjab two thousand years ago. These have become classics in their own way. For during the tours undertaken by Stein in search of Alexander, many still earlier sites were discoverad. Indian archaeology has thus profited a great deal by these foreign traditional accounts.

However, in all these early efforts in discovering India's past, its own traditional accounts, viz. the Puranas and the epics and even the "local site accounts" (*sthala mahātmyas*), had been completely neglected. For they were regarded as pure myths. This was no doubt due to deep seated prejudice.

Some of the Puranas had been translated by scholars like Wilson, whereas Sorensen gave us an index of proper names in the Mahabharata. But none of these

scholars gave any credence to the Puranic accounts, except Pargiter. Himself a judge of the High Court and thus accustomed to evaluate conflicting testimonies, he very carefully collated the accounts of the eighteen Puranas, as far as their genealogical portions were concerned. The result was a well co-ordinated list of kings, with important synchronisms, going back from the latest historical dynasties (ruling in Magadha) in about the sixth century B.C. to about 3000 B.C.[1] The famous Mahabharata War according to Pargiter's study was shown to have been fought around 1000 B.C.

Scholars, particularly European, were, however, sceptical. No doubt, there were royal families like the Yadavas and others whose ancestry stretched back for thousands of years, ruling in what is now Bihar, Uttar Pradesh, Madhya Pradesh, Punjab, Rajasthan, Sind, Saurashtra and the Deccan or Maharashtra. But these were mere names. There was nothing to substantiate their dynastic history. No material object, known to be so old as the names of the various regions claiming to be three to four thousand years old, was available.

Some interest was aroused in the Puranic and Vedic stories when the Indus Civilization was discovered all of a sudden in 1920. Its script and its authors still remain mysterious to us. Moreover, the civilization itself, in spite of its vast expanse, remains confined to the Punjab, Sind and Saurashtra and the Gujarat coast, whereas the Puranic empires lie further eastwards.

To fill up this void came the archaeological discoveries of the 1950's. Dr (now Sir) Mortimer Wheeler discovered a Copper and Stone Age Culture at Brahmagiri, in the far off Karnataka. This he tentatively dated to 1000 B.C.

The work of the Deccan College first at Nasik, then at Nevasa, and the excavations of the Archaeological Survey of nearby Daimabad in the Pravara Valley, and the earlier work at Bahal and Prakash in Khandesh, brought to light equally old cultures in the Deccan. Already by this time the joint excavation of the Deccan College and the M. S. University of Baroda had revealed still older cultures in the Narbada Valley and Malwa.

At every one of these sub-regions of the Deccan and Malwa, we can safely go back by three or four steps to about 2000 B.C. (for we have purely objective data, based on Carbon-14 determinations independently arrived at by the University of Pennsylvania, U.S.A., and the Tata Institute of Fundamental Research, Bombay,[2] from the historically known ruling families, though as yet no written evidence like the clay tablet from Ur in Iraq has turned up to say who the rulers of these Chalcolithic Cultures were. Still much has been achieved. The great gap between history proper and the unfathomed past prehistory has been filled up.

1. No less then ninety-five kings belonging to twelve royal families from the Punjab in the north-west to Bihar in the east and all before the Bhārata battle have been worked out by him in his *Ancient Historical Tradition*, pp. 148-49.
2. Now C-14 determinations are done by the Physical Research Laboratory, Ahmebabad.

Saurashtra has given still more interesting evidence. So also Rajasthan, particularly northern and south-eastern, formerly included under Bikaner and Udaipur States, respectively; for a number of cultures succeeding the Indus Civilization have been unearthed in these two areas.

In Uttar Pradesh, in the plains watered by the Ganga and Yamuna a still more interesting and curious phenomenon was noticed. A place called Ahichchhatra—near Ramnagar in Bareily District, had a very huge mound. Excavation there was recommended by Sir Leonard Woolley to get what he then called "a sequence of cultures" in the Ganga Valley. In the absence of any other more tangible or better data, this sequence was to be reconstructed with the help of pottery recovered from each successive layer of deposits. So, for the first time in Indian archaeology, accurate record was kept of all the excaveted pottery. Now, right at the bottom was found a distinctive pottery, but its significance was not then realized. But later when similar pottery was found in the Hastinapura excavation, and a systematic search yielded identical pottery from the places mentioned in the Mahabharata, in connexion with the quarrel between the Pandavas and the Kauravas then naturally it began to dawn upon us that *after all* the story in the epic cannot *all* be pure fiction. More important, the culture associated with the pottery, known from its peculiar colour and painting in black over it as the Painted Grey Ware, is the oldest so far known in the Ganga-Yamuna *doab*, and at least 400 years older than the Buddha, who lived in the 6th century B.C. Moreover, it was found to be fairly widespread, embracing the early homes of the Aryans and the kingdoms known as the Panchala and Vatsa (modern western and eastern Uttar Pradesh).

Thus it was quite possible to relate the people associated with the Painted Grey Ware pottery with the Early Aryans or in the alternative with the tribe or tribes to which the Kauravas and the Pandavas and their contemporaries in the region belonged. However, Carbon-14 dates recently announced by the Tata Institute of Fundamental Research, Bombay, of samples of charcoal collected from the Painted Grey Ware (PGW) as well as the later Northern Black Polished (NBP) deposits have posed a challenge to believers in Puranas and of early Aryan cultures in the *Madhya Desa*. Some C-14 dates of the Painted Grey Ware[1] range between B.C. 492 or 442 and B.C. 342 or 257 and of the NBP between B.C. 347 or 262 and 37 B.C. or 23 A.D.

Thus these brings down the dating by the excavator, Shri B.B. Lal, by about 400 years and incidentally support that of the late Col. Gordon and Sir Mortimer Wheeler. The results of this low date are very far-reaching. Not only does it make the Painted Grey Ware Culture contemporary with the Buddha and Mahavira, the beginning of the so-called historical period, but raises the still more vexed problem of the Mahabharata and the Aryans. If the P.G.W. is so late, does it also imply that the Mahabharata War

1. Three more C-14 dates from Hatinanpura fall within the same range, but the one from the lowest layers of Atranjikhera is eartier than 1000 B. C., indicating that after all the archaeologists were not quite wrong.

also took place so late, and worse still, is the Aryan culture in the region so late as was inferred on purely linguistic grounds by a few scholars? Thus the old problem has been re-opened. It bristles with all sorts of possibilities. Only further excavations on much more extended scale at such key sites as Hastinapura and Ahichchhatra might throw more light on it.

How archaeology tries to prove the antiquity of the places occurring in the Mahabharata has been mentioned above. A similar attempt should now be made to test the principal places associated with Rama—such as Ayodhya. Of course, here, if the story is correct, many of the places which Rama visited during his fourteen years' exile were in a forest, or such sparsely Inhabited iocalities. So our efforts to be successful should be directed to Rama's capital, and its vicinity, the Sarayu valley, or the ancient Kosala. The region to the south called south (Daksina) Kosala might yield equally old but different cultural relics.

Whether any ancient sites have survived in this land of shifting river beds, and colossal damage by one invading army after another, deserves consideration. But the problem is worth a trial. For quite recently the Ajay and other river valleys in the former Chota Nagpur plateau (and now in Bihar, Orissa, West Bengal junction) have begun to reveal their ancient secrets. Of these Pandu Rajar Dhipi, excavated by Shri P.C. Das Gupta, Director, Department of Archaeology, West Bengal, is turning out to be quite promising.

Puranas and Archaeology

In what way the new archaeological knowledge regarding the state of India before the true "historical" period compares with the Puranic legends as carefully worked out by Pargiter will be clear by juxtaposing the two on a map. The wide gulf still existing between the two is obvious, but also the general correspondence. In particular may be cited :

Archaeological Cultures	Puranic Rulers
(*i*) The distribution of the Painted Grey Ware from Taxila in the north-west to Vaiśali in the east, that is the whole of the Ganga-Yamuna plain, including the submontane regions.	(*i*) the rule of the Pauravas (or Bharatas) who were of the Aila stock) over the whole of the Ganga-Yamuna *doab* from the Siwalik Hills to Magadha, except Surasena (that is Mathura)[1] and Kaśi.
(*ii*) the distribution of the Malwa Ware (Painted black-on-red)	(*ii*) The Yadavas[2] (and their sub-branches) who, according to Pargiter, held all the

1. This has also yielded Painted Grey Ware and should also fall into the Paurava realm, according to this equation.

2. In Saurashtra an identical fabric has not been found, but others.

from approximately Gwalior in the north to Prakash or Daimabad and even Pune (Chandoli) in the south.

country between the Rajasthan desert and roughly Berar (Vidarbha) in the south.

To this we may add their further expansion southwards into the Deccan, thus :

(*iii*) Jorwe-Nevasa, Brahmagiri[1] ware spread over the entire territory from Navdatoli on the Narbada to Brahmagiri in the south,

or

we might assign this ware to another group of people.

Further comparison or juxtaposition is difficutt. For according to the archaeological data, the Indus Valley Civilization spread over the whole of the Punjab, Sind and Saurashtra, where in Pargiter's scheme the Anavas (another branch of the Ailas) ruled, whereas still north-westwards were the Druhyus.

This latter equation in our present knowledge would look impossible, for the Anavas and Druhyus were in fact an overflow of the Aryans who proceeded north-westwards from the Midlands (that is the region around Allahabad), whereas we know as a fact that the Indus Civilization was much earlier than the Painted Grey Ware and the Malwa Ware Cultures.

Thus this juxtaposition would breakdown, if followed in detail. *Secondly, it must be emphasized that so far there is no literary data at all, in the form of written tablets, seals or inscrlptions on stone or copper, to hazard any of the suggestions made above.* But we have reached a crucial stage and it is but proper to point out the likely posibilities. Further excavations should yield evidence which will prove or strengthen the hypothesis here propounded.

But should the evidence point to the contrary, then it would imply that all these dynastic lists of royal houses from Manu (Mānavas), or Pururavas (Aila), and Sudyumna are pure figments of imagination; that further, large parts of India such as whole of the Punjab, Uttar Pradesh, Bihar, Western Madhya Pradesh, Saurashtra and northern Deccan were inhabited by non-Aryan peoples; and that the growth of the Sanskrit language as well as the early historical dynasties was all within a few hundred years. Looking to the spread of English within 150 years or so, such an eventuality is not impossible. At the same time the discovery of three or four extensive Chalcolithic cultures gives

1. Considerable pottery of thls fabric was recently collected by Dr Ansari of the Deccan College, and on comparison it was found that it included both wheel-made as well as handmade fabrics and that it was made like that of Jorwe, but not so finished as to have a metallic ring.

us hope that the Puranic tradition is not all wrong, and it is a question of time only when with further intensive work some more definite proof would be forthcoming to prove its veracity, however partial it be.

Enough has been said to substantiate the thesis here propounded that the Indian tradition as embodied in the Puranas and the Epics has grown upon a substatum of truth. Hence it need not be completely discarded.

Even a small and limited excavation at Dwarka this season has shown that the stories in the Puranas about the city being once submerged in the sea are true. However, this event took place not some 5,000 years ago, as popularly beliveed, but only about the beginning of the Christian era.

Instances may now be cited of places which though not mentioned in any Puranas had local legend or traditions of their own, attributing them a hoary antiquity and prosperous period in the past, and which on excavation have proved to be so.

There is a tiny village called Jorwe, lying in the rich alluvial belt of the Pravara, about five miles (8 Km) from Sangamner, Ahmednagar District. Nobody outside Sangamner had heard of it. Local legend however called it "Jarāsandhanagara", that is the city of Jarasandha, an emperor of epic fame. In an inscription of the tenth or eleventh century it was called Jumyarave-grama. Thus its elevation to a city probably took place in popular parlance only much later. Now this Jorwe suddenly sprang up into prominence when beautiful red painted pots having long spouts like that of a tea-kettle, along with copper axes, were dug up by a villager from the foundation of his house some 13 years ago. Excavations later showed that these pots were a characteristic feature of the people who inhabited the whole of the Godavari-Pravara valley, and as far south as Karnataka some 3000 years ago !

Equally striking is the example of Navdatoli, a small boatmen's village, opposite the famous Maheshwar on the Narmada, 96.5 km. south of Indore. While the latter is mentioned in the Puranas as the great city of Māhismati, the capital of a dynasty of rulers known as Haihayas, not a word is said about the place on the southern banks, Locally, however, its village folk took pride in pointing out to the visitors its series of hillocks, as "Dhanbedi" or "mound of wealth". Mounds of wealth indeed they turned out to be when put under a careful spade, hiding beneath them the remains of a prosperous agricultural village with some of the most beautiful painted pottery known in India; and all going back to 2000 B.C. !

The story of Mohenjodaro is not different. To the viliagers of Dokri, it was the "Mound of the Dead". But no archaeologist or folk-lorist had cared to inquire why such a name was bestowed upon the place, until the late Rakhaldas Banerji, struck more by the size of the bricks and mysterious seals, laid bare its secret and gave the world the sight of a lost civilization.

Local traditions and even place and village names enshrine a folk memory of very, very ancient cultural practices. Thus in northern Karnataka and western Andhra

are such simple looking things as ash mounds which traditionally has been associated with some sort of cattle-penning practice. Of course, some people attributed these mounds to *Rakshasas* (demons) and *Vanaras* who served Rama during his exile.

Now excavation of these mounds and scientific examination of the ash has conclusively proved that these ash mounds were prehistoric heaps of cow-dung, which were ceremoniously burnt by people of the New Stone Age, some 4,000 years ago. Further, a study of the place names which contain the Kannada word for ash viz. *budi* indicates a large number of such prehistoric sites in the region. Thus an entire picture of the earliest pastoral people in south India rises before us by scientifically following a tradition.[1]

Traditions, whether epic or Puranic, Jain or Buddhist or purely local have an important role to play in helping unravel our past cultures and civilizations. But there are so many. Should we pursue or put to test every one of these ? Certainly not. It would be foolish to make such an attempt. First, every place which boasts of antiquity must bear some relics of the past. These from archaeologists' experience should be of sufficient importance so as to justify even a trial dig. Secondly, the site to be tested must be intrinsically important, as a centre of pilgrimage or occupying a strategic position on the ancient trade routes or situated in such natural environment which helps for understanding the development of Man's progress from barbarism to civilization through incipient agriculture.

In brief, the aim of the archaeologist should not be to obtain any object of the past, let alone artistic or precious, from his excavation of a traditional site, but this excavation must bear relation to the anthropo-economic problem or the problem of the movements of the people and civilization or a problem which has religious importance of a national character.

1. Allchin, F. R., *Neolithic cattle-Keepers of South India* (Cambridge, 1963).

THE HUMAN AND THE FUNCTIONAL APPROACH IN ARCHAEOLOGY

At a time when an objective attitude in all our studies is the ideal, and all possible avenues are being explored to achieve that why this attempt at or call to hark back to a discipline that has been found defective and practically given up ?[1]

This has been done for four reasons. Firstly, archaeologists all over the world seem to be specializing more and more in what Coghlan[2] some 30 years ago called the comparative anatomy of artifacts without paying attention to how : (i) the artifacts are used, (ii) they work, and (iii) if I may add, how they would tell about the social and economic condition of the people to whom they belong. Secondly all this specialized information is written in such highly technical jargon, no doubt befitting and probably necessary for the subject that not only the common man but even scholars find it difficult to follow. Thirdly, there is increasing and pressing necessity to communicate our research to the common man who ultimately finances all our research projects. Fourthly, it is necessary to relate our works to the present problems as far as it is possible to do so.

It not be assumed that this is the first time that such a view has been taken of our profession. Off and on archaeologists themselves sit up and look around them. Coghlan cited above, was one and recently Mrs. Jacquatta Hawkes[3] has done the same thing, while reviewing the book of Professor Mac Burney. My approach has not been actuated by anyone of these criticisms, for I have been thinking on these lines for several years. Besides as will be seen, I intend to show: (i) our work, whether it be an excavation, or a re-interpretation of the old evidenee can be directed to a more purposeful aim, and (ii) what steps we should take to achieve our objectives.

In the examination or re-interpretation naturally .there will be some c itisism of our own work, though this is not with a view to decry what was done previously, but to show how it is inadequate to meet our present demands. We all learn with experience, and this experience is to be put into practice or tested.

Both these aspects of this new approach might be illustrated with a few examples.

1. Cf Clark, J. D. in Richard B. Lee and Irven Devore (Ed), *Man the Hunter*, Chicago, 1968, p. 280.
2. Coghlan, H.H., "Native Copper in Relation to Prehistory", *Man*, LVI, No. 156.
3. Hawkes, Jacquetta, 1968, "The Proper study of Mankind", *Antiquity*, Vol. XLII, No. 168, pp. 255-62.

Re-examination of the old evidence. Here I have chosen examples from pre- and proto-historic archaeology as well as historic archaeology, so as to show how great scope exists for this new line of thinking.

The first relates to the now well-known view that the Harappans or the people of the Indus civilization were worshippers of the phallic symbols like the *linga* and the *yoni*, the Mother Goddess and Siva-Pasupati.

What are the bases for this view? A proper answer should depend on two things.

First and the most vital: Were all or some of these objects—the *linga*, *yoni* and the Pasupati seal—found in an indubitable context, such as a domestic (household) or public temple-like structure that we could say that all these or any one of them was worshipped as a cult object? For, we should clearly distinguish, as all societies do whether primitive or advanced, between an object that is actually worshipped and others which might be held in some kind of esteem or reverence.

Since this evidence cannot be easily had from Marshall's initial account of the Indus civilization, nor from Mackay's and Vats', more detailed reports on Mohenjodaro, Harappa and Chanhudaro a fresh, systematic study was necessary. In this study undertaken at the Deccan College for a Ph.D. dissertation, an attempt has been made :

(i) to locate these objects—the *lingas*, *yonis*, Mother Goddess figurines-in time and space, that is vertically and horizontally, noting particularly the context (of course, as given or recorded by the excavators); and

(ii) to find out how many of these objects, particularly among the so-called *lingas* and *yonis* do really resemble these objects as known from later archaeological remains.

The result of this systematic study had indeed been a revelation. Leaving aside the stratigraphy which has been found defective, it was found that none of the so-called *lingas* was found in a context which can be regarded as a domestic or public shrine. In fact, almost all of them are found out of context; some even in drains and streets. Secondly, among the so-called *lingas*, there is a considerable variation in form and size, and except one or two, the rest—and their number is not small—do not look like *lingas* at all. Thus the present evidence obtained by a mass method of excavation does not warrant *linga*-worship was practised at Monenjodaro.

This is also suggested by the fact that such *linga*-like stones have not been found at other sites of this civilization. And looking to the great uniformity in other respects between the far-flung centres or sites, one would expect such objects to occur everywhere.

Similar is the position of the so called Mother Goddess figurines. None have been found in a context, as for instance in a recent excavation at Hacilar in Turkey, or the serpent goddess at Knossos in Crete, so that we could accept it without any hesitation as a cult image.

Moreover, all these figures have soot marks in their fan-shaped headdresses; and it needs to be inquired where in India images with lights on their heads are worshipped today. For, *normally* lamps or lamp-bearing figures are placed before or around the cult image.

Until such an investigation has been carried out, we should withhold our judgement.

If the evidence for the *linga*-worship is doubtful and inadequate, for the worship of the *yoni* it is still more so.

For not only no ring-stone was found in an undisputed context, as to be regarded as a cult object, but some ring-stones, particularly, the large ones found at Mohenjodaro were regarded by Mackay as architectural members,[1] whereas those found at Lothal[2] are possibly anchor-stones.

Thus for want of precise data all the three groups of objects which singly and cumulatively were regarded as indicative of the Harappan religion have to be held as suspect, until more reliable evidence, under more exacting conditions, is obtained in future, or the decipherment of the Harappan "seals" confirms the earlier view. The present interpretation is based on a pre-conceived notion that the Indus civilization is non and per-Aryan, and since there is a derogatory reference to phallic worship in the *Rigveda* these so-called *linga* and *yoni* stones are indicative of the worship of the fertility symbols.

There is also little doubt that the interpretation of the so-called Pasupati or proto-Śiva is influenced by such a pre-conceived notion. In the first place, if this is truly a seal, it is not a cult object for worship. Unless, therefore, the seal is deciphered, we should withhold our judgement.

In this connection, it should be pointed out there is no representation of a *linga* on any of the seals. If it were a cult object, we should normally expect it to be shown on some seals at least.

Further, the earliest true *lingas* appear possibly on some punch-marked coins, but definitely on some local or tribal coins of the early historical period.[3] But none of these would be earlier than the 3rd—4th century B.C. If the *linga* worship were really practised by the pre-Aryans, some traces should have turned up between the Harappan and the early historical period.

If the alleged destruction of the Indus civilization at Mohenjodaro and Harappa rests on no archaelogical foundation, but on circumstantial evidence which too is no longer valid, then the views about the Indus religion rest on very insecure foundation, which is further weakened by a prejudice.

1. Mackay, E. J. H., *Further Excavations at Mohenjodaro*, 1938.
2. *IAR 1961-62*, p. 10, PI. XIX A.
3. Banerjea, Jitendra Nath, *The Development of Hindu Iconography* (2nd Ed., Calcutta), 1956.

How to rectify this state of things ? By a more careful, purposeful excavation at Mohenjodaro and Harappa and other Harappan sites in India and Pakistan. Views expressed over 30 years ago remained unquestioned, but now we are seized with the problems raised by these views. Hence the excavations have to be directed toward the solution—or better understanding—of these and other problems.

The secound example I have selected from historical archaeology. So far the various types of temples have been studied from the point of view of the development of architectural styles but not from a socio-religious angle. As far as we know the earliest temples were very inconspicuous little things, having a small shrine-chamber and a flat, low, roof or having a small pyramidal or a (Dravidian) horizontally raised *sikhra*. The *maṇḍapa*, or the outer hall, if at all, was also very small. Gradually both these became larger, but even by the 8th century, the *sabhāmaṇḍapa* was not more than 100 or 200 ft. square. This is also the case in the famous temples at Khajurahao. Here the *sabhāmaṇḍapa* of the Lakshmana temple is not more than 12 ft. by 12 ft. Usually these halls are called *sabhāmaṇḍapas*, that is assembly halls. Later the term *rangamaṇḍapa* came into use, meaning thereby that the temple dances also took place in these halls. Some temples have both a *sabhāmaṇḍapa* and a *rangamaṇḍapa*.

Now can we relate this development in the size of the *maṇḍapas* with the growth of the institution of the *devadasi* or temple dancer ?

We connot interpret the development in the size of the temple, as a fundamental change in Hinduism, as the later was individualistic and did not emphasize mass prayers as in Buddhism, Islam or Christianity. And the shrine-chamber proper, even in huge south Indian temples has remained small.

The early *maṇḍapas* are so small that it is indeed doubtful if anybody could dance there. If at all, the dances must have taken place outside, in the open.

But by the tenth century when the Khajuraho temples were constructed, the size of the *maṇḍapas* had increased. Even then the size of the *maṇḍapa* was comparatively small. That of Lakshmana temple is only 12 ft. by 12 ft.

From this consideration of the size of Brahmanic or Hindu temples we may now draw the following inferences about the sociological conditions.

That Hinduism being not an organized religion to start with, its place of worship, viz. the shrine-chamber (*garbha-griha*), and later the *maṇḍapa* were originally small, meant for individual worship only.

Later the shrine-chambers remained small, though the *maṇḍapas* increased in size, in response to the influence of Buddhism, which had an organized *sangha*, and secondly to satisfy the desire of the patrons—kings, noblemen and rich merchants—to show off.

Since the *maṇḍapa* was originally non-existent, and later very small, possibly there was no dance before the deity, that is there was no institution of the *devadasi*. Later

when it started, the dance was not for the public. At the most the king and the members of his family and a few courtiers could have been accommodated in the *sabhāmaṇḍapa* of the Lakshmna temple.

That the Khajuraho group of temples, built as they were in an isolated and forested environment, were probably built by the Chandella kings for the patronage of certain Śaiva and Vaishnava sects, who practised *Tantric*, orgiastic rites. Further, this isolated, forested, environment also explains the depiction of highly erotic sculpltures. For in the first place, these sculptures stood for a philosophy of life, represented most artistically. Secondly, though thought to be obscene, these orgiastic scenes would be seen by a few persons only, and would not corrupt the mind of the onlookers, as it is likely to do when with modern facilities hundreds of persons visit these temples.[1]

Indian sculptures—figures of men and women, gods and goddesses—have so far been studied from the artistic point of view. But no attempt has been made to relate these sculptures to various regional or ethnic groups of people. This can be done for the early sculpture, from Barhut, Karla, Kondane, Bhaja, the recently discovered Pauni sculptures, Amaravati and Nagarjunakonda, before idealization of the human figure came into vogue in the Gupta period. The *Yakshis* from Patna, and the numerous figures carved on the railings of Sanchi, Amaravati and Nagarjunakonda should reflect the respective local types.

The Mauryan terracottas from Patna, the ancient Pataliputra; not only show a close affinity which the present day Manipuri and Naga dance poses and costumes, but indicate that the Mauryan Court knew intimately the various ethnic groups inhabiting their eastern border, and secondly that these dance poses and costumes are at least 2300 years old, even though not mentioned by Bharata, our earliest known dramatist.

From my experience I can say that the Barhut artists drew their inspiration from the people around them, as also the sculptors at Bhaja and Karla from the ancient *mamala-ahara*, and parts of western Maharashtra. Even some of the large terracotta figures, particularly that of Parvati form Ahichchhatra in U.P., can be so derived. Even purely iconographical figures may show local ethnic traits in their make up.[2] Thus a relationship can be established between early art and ethnic types.

This line of study will also help us in knowing about the introduction of foreign populations into the country, an example of this phenomenon being formed by the Kushana royal statues at Mat showing Central Asian features. Likewise it has been inferred that the human figures stamped on the moulded brick tiles from Harwan in Kashmir exhibit physiognomical features which are wholly unlike any people who inhabit Kashmir or any other part of India.[3]

1. Sankalia, H. D., "Socio-Economic and Geographical Background of Khajuraho Temples" *JIH*, Vol, XLIV, 1966, pp. 29-43.
2. Gaudani, H., Dhaky, M.A. and Shastri, H.P., *Svadhyaya*, 1963, p. 375.
3. Ray, Sunil Chandra, *Early History and Culture of Kashmir*, Calcutta. 1975,

In pure pre-history, stone tools belonging to various periods are being studied today from the typological and morphological points of view. And in this study increasing assistance is taken of statistics and allied disciplines. As a purely objective approach this is no doubt necessary, particularly when the assemblages are large and mixed, and if from an excavation, the stratigraphy is not clear, (the layers being thin, as in the Upper Palaeolithic caves in Western Europe). Probably such a detailed analysis of tool-types alone will reveal the distinctive character of each cultural phase and the distinctive character of the various sub-groups or sites. Even so, caution is necessary in the use of statistical methods in view of the peculiarly human nature of our subject. To cite an instance, a worker given to quantitative studies may consider the finding of a few polished stone tools or scraps of metal in a Late Stone Age site like Langhnaj as very insignificant, though culturally it is highly significant as it reveals the contacts which the people entered into with the neighbouring communities.

But when the collection is homogeneous, and from a stratified site, a morphological study is not enough. What a layman or a scholar from another discipline would like to know is what was the Man (the inhabitant of the site) doing with such tools ? It is immaterial whether these tools are handaxes, cleavers, or parallel-sided and penknife type of blades from a site like Chirki-Nevasa and penknife type of blades from a site like Chirki-Nevasa and Navdatoli respectively.

We should, therefore, try to know the functions of the tools. This may be done in one of the following ways :

(1) By finding out where such tools are being used today or where they were in use in the past and of which we have first hand reports. That is search for ethnographical parallels;[1]

(2) By studying the marks on edges of blades and scrapers through a microscope as is being done by Professor Semenov;[2] and

(3) By actually using the tools with a view to finding out their use and efficacy.

The ethnographical parallels have been found for the ground or polished stone tools and the blade-tools. From these we are reasonably sure that the former can be used for all such wood work, whereas the blades when found hafted in bone, wood and in clay handles leaves little doubt that these could be used as sickles, harpoons and arrow-heads. Unfortunately such hafted specimens have not been found from any site in India. The question is : "Should we then merely regard these as sickle-blades, and harpoons and arrow-heads ? or study them morphologically, noting the length-and breadth ratio of blades ? or try to understand their significance by actually putting them to various uses ?

1. Bordaz, Jacques, "Flint Flaking in Turkey". *Natural History*, Vol. LXXVIII, 1969, p. 73.
2. Semenov, S. A., *Perhistoric Technology; An experimental study of the oldest tools and artifacts, form traces of manufacture and wear*, London, 1964.

Having handled some hundreds of these blades at Navdatoli in 1953-54 and at Nevasa in 1954-56, when we carried out horizontal excavations at Navdatoli again in 1957-59, I thought that an attempt should be made to understand the use of: (1) The parallel-sided blades; (2) The pen-knife blades, (3) The lunates, tringles, trapezes; and (4) The saw-like denticulated blades, after noting their distribution vertically and thus relating them to the excavated one-room houses.

From this study extending over 2 years I came to the following conclusion.[1]

That the crested ridge flake was made very often but it was not always necessary, and it had no function after it was removed from the core; for only once it was found turned into a penknife-blade.

The parallel-sided blades were held in the bare hand and used for all the purposes for which we use a small steel penknife today; penknife-blades and straight blunted back blades were hafted and used for some specific additional purpose; serrated blades, either unhafted or hafted singly or in series, were used for sawing wood, bone or ivory; lunates and trapezes were used as points for weapons used in hunting or fishing and not for cutting edible grasses.

Each household had its own tools. The industry probably supplied all the needs of the family and the settlement. Since the settlement was fairly stable, it was probably also self-sufficient with regard to food production and the making of pottery.

This study also convinced me that the morphological study of a homogeneous collection of blades would at the most—if at all—show the regional variations between the various chalcolithic cultures, but will not tell us anything about the life of the people who made these blades.

Similar studies I would carry out with regard to the various types of tools of the Middle Stone Age and the Early Stone Age, provided they are from a stratified site. Here I will relate to you the results of my experiments with the handaxes, cleavers, choppers and scrapers from the excavated site of Chirki-Nevasa.

The handaxe and the cleaver have now been known for more than 100 years. The cleaver as its name suggests was supposed to have been used for cleaving or chopping at one stroke. The handaxe was regarded as an all-purpose tool.

However, no one had so far carried out any experiments with either of these tools.[2] Therefore, various inferences have been made from time to time, with regard to their functions. I shall mention a few inferences made during the last 20 years.

1. Sankalia, H. D., Socio-Economic Significance of the Lithic blade industry of Navdatoli", *Current Anthropology*, Vol. VIII, pp. 262-67.
2. After this was written, the author met Dr L. S. B. Leakey at Paris, who told him that he had reached the same conclusion about the use of handaxe and the cleaver and other tools by his experiments in Africa.

From the preponderance of cleavers in the surface collection from Karnataka, Zeuner[1] thought that the cleaver was used primarily for cutting trees. Their occurrence in large numbers indicates a forested environment. Professor Desmond Clark suggested that the cleavers might have been used for cutting meat, as a mattock rather than for cutting trees, because the edges of cleavers are rarely found abraded.[2]

The handaxe with its variously pointed one or both ends was believed to have served primarily, as a digging tool, though it could have served other purposes as well. However, Paterson and Drummond regarded them as weapons of war and chase, their users as warriors and hunters, whereas the makers of the Sohan pebble tools as non-violent forest-dwellers.[3]

Which of these interpretations should we accept ? Experiments carried out at the Deccan College during the last year showed that :

(1) The handaxe is not very useful for cutting a tree like the *babul*, though its efficacy varies with the seasons. For what could be done with comparative ease in the monsoon became difficult in the dry season.

(2) The cleaver, particularly with an oblique edge, cuts a branch or a moderately thick trunk of a *babul* tree more easily than the handaxe.

(3) The edge of these tools soon develops a battered uneven surface, and if further persisted with, small chips come off from the edge, and the tool buckles and breaks in two.

(4) Since the edges of very few handaxes and cleavers are thus found battered in any large collection, it might be said *provisionally, pending further experiments*, that these tools were not used on hard substances such as stone and wood, but used for cutting open the carcass of the trapped animals and their flesh chopped off with cleavers and skin cleaned with scrappers.

(5) Negatively it might be suggested that Early Man had no necessity to cut or fell branches of trees or wood if he had to live in the open, along river banks, as it is commonly supposed.

(6) These are utilitarian functions which have been deduced from actual experiments, which as far as my knowledge goes, have not been carried out with the Early Stone Age tools.

(7) It is indeed doubtful if we can deductively or inductively infer the division of labour among the sexes and other aspects of life (as has been

1. Zeuner, F. E., *Environment of Early Man with special reference to the tropical Regions*, Baroda, 1963.
2. Clark, J. D. "Human Ecology During the Pleistocene in Africa, South of the Sahara", *Current Anthropology*, Vol. I, 1960, p. 315,
3. Paterson, T. T. and Drummond, H. J. H., *Soan : The Palaeolithic of Pakistan*, Karachi 1962, p. 125.

very glibly suggested by a recent writer[1] of the Early Stone Age or Middle Stone Age and the Late Stone Age Man without excavating actual camp sites with a much more exacting work than has been hitherto attempted.

(8) The skin of an animal like the goat could be removed more easily with a true stone blade of chalcedony or chert than with a scraper or other thicker flake-tool of the Middle Stone Age.

So much for understanding the utilitarian function of Stone Age tools. We *might know* some thing about their makers, not by simply imagining or inductively reasoning from the chronological occurrences of tool-types, in any given site or region, but by a factory or factory-cum-habitation site. Our work on such a site at Chirki-Nevasa is in progress, and within a year or so we might he able to say something meaningful.

A similar method may be recommended for having a deeper insight into the other Neolithic and Chalcolithic cultures and the Harappa civilization. First, the Chalcolithic and Neolithic settlements in the peninsular India: So far the excavations have produced distinctive pottery fabrics and types, from which we may fairly discern the beginnings of the various regional cultures such as the Malwi, Khandeshi, Marathi, south Indian, Eastern Rajasthan, to be followed later by more encompassing cultures, such as the Painted Grey Ware, the Northern Black Polished Ware, and the Black-and-Red Ware.[2] However, we should now know the plans of their settlements, the size of their houses, and their family units and the functions of their pots and pans and from all this information gain a better knowledge of their economy and social organization and religion.

Such a knowledge can be obtained only by well-planned horizontal excavations. These need not be total, that is, of the entire site. A smaller area would do. What is essential is that the various objects found from each potential house are not only recorded but kept separately just as pottery is kept in the pottery yard, and studied soon after (*within two or three days*) by each *excavator himself* and not left to be studied by a third person at the end of the season, or after years in the laboratory. The various objects so recorded should be studied in relation to the house excavated at the site.

This means that our work will have to be much more exacting, and much slower than it is today. It may be that the digging has to be stopped for some time during the week. But the result will be truly rewarding. From our last seasons excavation at Inamgon we could say with reasonable certainty that the dead were buried right in the one-room, round or rectangular huts, made with round wooden poles and mud wall, and the inhabitants of such a house had one or two storage jars, their bases resting on flat stones. These pots were kept almost on the periphery, or border of the house. In the late phase each family had one black-and-red bowl, one channel spouted bowl of black-on-red ware, and several convex-sided bowls, and *kunda*-like vessels. But so far no flat based bowls or *thalis* have been noticed in these houses. Further each house or between two neighbouring houses there was a large and deep boat-shaped stone saddle quern for grinding grain.

1. Malik, S. C., *Indian Civilization, The Formative Period*, Simla, 1968,
2. Sankalia "Cultural Divisions of India", *Science Today*, 1967.

The problem that is still vexing me is that if the dead were buried in a small house like this, did the survivors continue to live in the house, or did they permanently or even temporarily abandon the house ? Were these permanent-looking like settlements seasonal ? Perhaps a trained anthropologist might shed more light on this and other questions. But all these cannot be lightly raised and answered.

POST SCRIPT

On this subject of the function of tools, Prof Sally R. Binford of the University of New Mexico has written several papers. Though I have not seen the originals, I have had the opportunity to see the latest view on the matter given by her in her paper "The Significance of Variability : A minority Report,' submitted to the symposium on Environmental Changes and the origin of "Homo Sapiens" She Says :

"I want to emphasize that it is the *testability* of functional interpretation of variability that convinces me of its priority in prehistoric research. Furthermore, I would argue that even when functional hypotheses have been thoroughly tested and refuted, we are not justified in substituting essentially untestable interpretations about psychological preferences for different classes of tools on the part of prehistoric groups.

There is another dimension of variability that needs examination at that point—the dimension of *style*. This is essentially a residual category—i.e. those kinds of variation that cannot be explained by reference to function or differences in raw material. In these terms, stylistic variation is a result of the different enculturative patterns of different socio-cultural units; it is style that can inform us about the ethnic or social identity of different groups of tool makers. For example, the differences in various Upper Palaeolithic assemblages within a single functional tool category, such as burins or endscrapers, might well be the result of different ways of making the same class of tool by different social groups. But we can never be sure that this is what our typologies are measuring unless we *first* exhaust the significance of functional differences, and *second* until we have parallel classifications of stone tools, one based on functional attributes and the other based on attributes that we think might inform on style. Even then we were not spared the arduous task of hypothesis formation and testing. In a rather acid comment on method in the social sciences (prehistory is classified as a social science in the United States), a philosopher of science writes....."

To summarize, the explanation of inter-assemblage variability cannot be assumed. Variability in form and frequency of tool-types can result from many different sets of causes, operating in a highly complex fashion. If interpretation of prehistory is to be more than a polemical exercise, our job is to formulate testable hypotheses and to test them as rigorously as possible.

She has also to say very pertinently about the demonstration of independence, i.e. of different social groups without mutual influence in an excavated site. And she says very plainly that this will depend upon our ability to demonstrate that the two groups were occupying different ecological niches in the same habitat. And, therefore, she concludes "the point is that until the significance of variability is systematically investi gated, the interpretation of distributional data remains in the realm of opinion."

PREHISTORIC COLONIZATION IN INDIA : ARCHAEOLOGICAL AND LITERARY EVIDENCES

(When the Charutar Vidya Mandal invited me to deliver the Bhailalbhai Memorial Lectures for the year 1975, not only I immediately accepted the invitation for this because it gave me an opportunity to pay my tribute to an Administrative and Engineering genius, but selected "Prehistoric Colonization in India : according to the archaeological and literary evidence" as the subject of these lectures. For Vallabh Vidyanagar was nothing but the culmination of the long process of colonization which the Patidar Community had initiated in Gujarat during the last 2000 years.

During the 19th and the early 20th century, the word 'Colonization' and 'Colony' was something disrespectful. For it had bad political connotation. But during the last 50 years, we have become very familiar with this process all over India, and now there is no new town or city in India which has no "colony". Each of this "colony" carries the implication that the people living in that colony are knit together by caste, sub-caste, religion or social or economic status or educational needs.

This idea was not unknown in historical times. Inscriptions contain specific references to Brāhmanasthāna or Brāhmanapuri. It is this concapt which has been discussed in these lectures.)

If we accept the principle viz. that happening or process has to be described as colonization, when we find a group of people united either by race, religion, sub-religion, trade or business, profession, caste or place of residence migrate to a new place, region or country and establish their way of life to which they were accustomed in the mother country, making such changes as are or become necessary, to environmental, ecological and other reasons, then we may proceed to examine our literary and archaeological data and see how far these fulfill or come up to our definition.

Literary Data

Our literary data is enshrined in the Vedic and Puranic litterature. These refer incidentally how certain regions or parts of India came to be occupied by Vedic tribes or chiefs and Puranic dynasties. Neither the Vedic texts or the Puranas always tell us who the earlier inhabitants of the places occupied or settled and colonized were nor we get a detailed or intimate picture of the way of life, of either the original inhabitants or the new settlers, though something about the political, social, religious and economic con-

ditions may be gathered by putting together the scraps of evidence from these sources. This will be briefly indicated later.

Prehistoric Colonization : The Archaeological Evidence

As opposed to Vedic and Puranic references we have a number of Chalcolitic and Neolithic cultures discovered in different parts of India during the last thirty years or so. Since 1953, I have several times pointed out how one may try to identify these cultures with the Vedic and Puranic tribes or dynasties, the latest attempt being in the new edition of my book *Prehistory and Protohistory of India and Pakistan*. The thesis there put forward has been here enlarged.

During the last 25 years and more several small local cultures in Baluchistan have been indicated either by site names or after the pottery fabrics and designs.

Now everyone of this culture has to be regarded on the principle explained above, as a kind of colonization. Colonization from where ? In our present knowledge from Iran ; no earlier deposits, except in sites like Anjira and Rana Ghundai are known ; and even there, the pottery of each sub-phase is quite different and distinct from the earlier and later pottery. We do not have much evidence for local development and therefore, the late Brigadier Ross has been compelled to describe them as colonization by newcomers.

Thus in Baluchistan in the absence of any other evidence of local, indigenous development, we have got to postulate arrival of different groups of people at various times and setting down on the same site or different sites in a region divided by hills and valleys. The scence changes a little when at one time, about 2500 B.C., we find not at one place but at many places, from north to south and east to west, not only pottery, but relics like seals, figurines and even brick-built houses with sanitary arrangements, as at Mohenjodaro. Thus we have to say that the Harappan culture or the Indus civilization had spread to Baluchistan and this is the story not only in Baluchistan but in the whole of Punjab, Sind, Saurashtra and even the borders of Afghanistan or the North West Frontier Province.

Though, as yet, we do not know who the authors of the Indus civilization were, there is little doubt that it was one of the largest and widespread colonizations or an empire in the world known today. For, wherever we go, either at Gumla or Kulli or Mehi and Dabarkot in Baluchistan or Ropar in east Punjab, Kalibangan in north Rajasthan or Lothal in Saurashtra, we behold an almost uniform, identical way of life : small towns or cities with kiln-made bricks or mud-bricks but bothrooms invariably made of *pucca* bricks, and made water-tight with gypsum or Plaster of Paris, public and private drains, and well aligned streets, well-made pottery, (both in fabrics and shapes) etched carnelian beads, seals, sealings and above all stone knives of chert, probably exported from the quarries of Sind.

Such a uniformity in material culture or objects of daily life has never been witnessed before or after, for instance, in the British empire or its predecessor the

Mughal empire or the earlier Maurya and Gupta empires or the Roman empire. In all these examples, we have had, no doubt, the exercise of political hegemony from Delhi or Patna or from Rome. But no one can call it by any stretch of imagination as colonization. But it was different with Indus civilization. The Harappans had probably spread out from Sind, in about 2500 B.C. or even earlier, say 2700 B.C. or even 3000 B.C. and gradually occupied the regions mentioned above and established everywhere their way of life. This could have been made possible only when the authorities at Harappa and Mohenjodaro had sent out trained architects, engineers, masons, potters, bead-makers and what not to help new States.

Of course, with more careful excavations and study of finds from each site, some differences will be found. But these so far are minor and to be expected in such a far-flung "Cultural Empire".

As far as we know, this was the most widespread attempt in the colonization of India. It now appears that it was not the first. From the small probings by Sir Mortimer Wheeler at Harappa, thereafter by the Pakistan archaeologists at Kot Diji and then recently at Gumla and some other sites, by Shri B.B. Lal and Shri B.K. Thapar at Kalibangan in Rajasthan and reports from explorations and small digs by Shri Suraj Bhan in Haryana, all tend to indicate the existence of a culture earlier than the Harappan. Hitherto it was called pre-Harappan, but Dr Rafique Mughal who had an opportunity to study at first hand the finds from Kot Diji prefers to call it Early Harappan. To me the name is not much relevant, as the fact, that a few centuries before the mature Harappan was established all over Sind, the Punjab, Baluchistan, Kutch, Saurashtra and Gujarat coast, there was a culture, if not equally widespread, indeed fairly extensive, embrace as it did the NWFP, the Punjab, Sind and northern Rajasthan.

Whoever the authors might have been, owing either to culture diffusion, trade, or some other means not known to us, a uniform kind of daily life was witnessed, a few centuries before the Harappans, over a wide area. It had no visible roots in the earlier indigenous culture, which if it be there, is not known either from Sind, the Punjab and north Rajasthan. So, according to the definition of colonization we have adopted, we have to describe this phenomean, and phenomenon it was, as colonization.

From where did these colonizers come ? At the moment the answer is from Iran, and further afield. For, in the pottery fabrics and designs found among the pre-Harappan deposits at Kalibangan, Kot Diji and at Gumla and NWFP there is a majority which recall or identical with those from Baluchistan and Iran. Unless, therefore, we can show that these too have developed on the Indian soil, these have got to be regarded as imports or objects made by a group of people who had come from Iran and Western Asia through the Bolan and Gomal passes in Baluchistan and Afghanistan respectively.[1]

Now it is interesting, nay very significant, that remains of this culture at Kot Diji and Gumla are found burnt by the Harappans, though at Kalibangan the occupation of

1. Mughal, M. R., *The Early Harappan Period in the Greater Indus Valley and Northern Baluchistan*, 1971.

the latter appears to be peaceful. Thapar even thinks that the Harappans and the pre-Harappans lived side-by-side. There are no visible signs of destruction, but only enlargement of the outer defence viz. the mud-wall originally built by their predecessors.

According to the latest information received from Rafique Mughul of Pakistan Directorate of Archaeology on 19-12-1974 the nucleus or the pre-Harappan and post-Harappan-or the Cemetery-H Cultures, or as he prefers to call the Early, Mature and Late Harappan cultures was the Central Indus Valley. The region, it would appear on the present showing, had received a series of impacts from Iran and Western Asia. These, acting on or mixing with, the indigenous element, flowered into the Indus Civilization. There is no denying the fact, that as now, or throughout the known historical periods or phases, beginning with the Irano-Mauryan, Indo-Greek, Saka, Kushana, Roman and Gupto-Sassanian, the number of foreigners or colonizers biologically must have been always small, though the actual number and their depth of penetration into India would depend upon a number of circumstances. Foreign objects, however, such as the Roman amphorae had reached even the heart and forested regions like Deoni-Mori in northern Gujarat.

In the various historical episodes or periods mentioned above, we definitely know who the local rulers were. But for the prehistoric, we neither know the names of the rulers or the ruled. The latter must have been not only a large number but sufficiently receptive, clever and intelligent, honest, hardworking and sincere as to produce one of the finest, the largest and the most long-lived civilizations that India and the world has ever known.

Since many of the aspects of this civilization are well-known, it is not necessary to go into further details, Only the essential and new features such as the dock or the large tank at Lothal and the sacrifical pits at Kalibangan need be mentioned.

As is now understood, owing to several causes the Indus Civilization began to decline and disappear both in the nuclear and in the peripheral regions by about 1700 B. C. Even in Saurashtra, at Rangpur and Somnath not only the brick-built houses are replaced by the mud or the lime-stone houses but the pottery gradually changes. The chert and flint blades also vanished. Among the new pottery shapes and fabrics are the footed-cups or goblets of the Lustruous Red Ware. Since I first saw this I have been reminded of Iranian parallals, viz. the goblets at Sialk and Hissar, though I must admit that the Rangpur goblets are not the exact copies of any Iranian originals, as also of several types, and bearing many different designs found later at Navdatoli opposite Maheshwar on the Narmada. Not less than eight such goblets with flat bases in the Jorwe fabric have been found in the recent excavations at Daimabad, District Ahmadnagar.

What was or were the sources of these cultures in Saurashtra or Madhya Pradesh or for that matter at Ahar and 50 other sites and of the numerous sites in the Tapi Valley and Maharasthra ?

At Navdatoli the culture appears already in a fully developed form, in about 1600 B.C. There is no change whatsoever in the house plans, though the use of lime

becomes infrequent. The blade industry also shows no change. The only change one witnesses is in pottery, forms, fabrics and decorations, These show a profusion in phases II and III and seem to decline in phase IV.

Among all these, the only indigenous elements are no doubt the house plans and method of construction. These may still be seen at Navdatoli itself or anywhere on the Narmada from Amarkantak to Maheshwar.

But nowhere among the indigenous which are largely Bhils in the Central Narmada Velley, and Gonds in the upper, does one see such wine cups, champaigne and brandy cups as Sir Mortimer Wheeler christened them on first seeing them in 1959 at Navadatoli. Nor can one see anywhere the now familiar large channel-spouted bowl. In fact, it was the discovery of such a channel-spout in the excavations at Navdatoli in 1953-54 and its occurance in Iran, as brought to my notice by A.V. Naik, one of my first pupils, that led to the large scale excavation at Navdatoli. These excavations brought to light not only rich pottery-complex and equally rich stone blade industry but also charred grains of wheat, rice, barley, *moong*, beans and also oil seeds like flax.

Now this was the first time that so many cereals were found at one site. They are all grown today in and around Navdatoli and in Madhya Pradesh. Thus the antiquity of the food habits of the people or of food production has been taken back to at least 3500 years. But when and where did it begin ? In Madhya Pradesh or outside ? On this point palaeobotanists tell us that at least three of the grains viz. wheat, lentil and barley and the oil seed, viz. flax have had a much earlier origin in Western Asia, at Catal Huyuk in Turkey. All these have been found there as early as *c.* 6000 B. C. There are many other sites as well.

All the available data as known upto August 1974 has been listed in the chart published in my book. This shows an unmistakable eastward diffusion of such important grains as wheat, barely and lentil and the oil seed, like flax and seasamum.

Some ten years later Dr V.S. Wakankar discovered Kayatha, the ancient Kapittanaka of Varahamihara, near Ujjain. Excavations here have yielded the genesis of an earlier culture called the Kayatha Culture and superimposed by Ahar and the Navdatoli. Now all these, even the Kayatha, appear in a full fledged form. The Kayatha pottery seems to have connection with the pre-Harappan, as known from Kalibangan; if this is proved by further, more detailed evidence, then our speculation that here we witness the migration of the pre-Harappans from Northern Rajasthan into the Chambal valley in Madhya Pradesh, were ousted or displaced by the Harappans may be proved.

The Ahar or the Banas Culture reveals a similar story. No antecedent stages are found in the 50 ft deposit at Ahar, a site now part of Udaipur city. The ancient Aharians were well conversant with the smelting of copper from the beginning, i.e. when we first meet them settling on the banks of the Ahar river in about 2100 B. C. They made an altogether different kind of pottery. Very little of it was painted and the inhabitants used no stone tools, except huge saddle-querns and pounders for grinding or crushing

grains. Their houses were large, built on the locally and easily available schist stone plinth, with walls of mud and mud brick. These houses were furnished with huge storage jars, built-in silos and large two-mouthed *chulahs*.

These house-remains, provided with abundant pottery, saddle-querns and *chulahs* contained little else, so that contact and connections with other sites in India, even Rajasthan and Madhya Pradesh are difficult to establish. But among the 38 terracotta beads bearing incised decoration, 8 beads show designs which are identical with those from Troy, while one recall that from Anau in Central Asia. This is indeed insufficient evidence to warrant any legitimate conclusions regarding the foreign origin of the Ahar culture. But on the other hand we have none at all for indigenous origins either. Detailed study by one of my former pupils, Dr Malti Nagar, of the Bhils in and around Dhulkot at Udaipur and in south-east Rajastan showed no more evidence of the local origins than the house plan, which I had first noticed in 1962. Thus my view that the Bhils might have been once the original authors of the Ahar culture remains unproved.

Thus though there is evidence, albeit insufficient, to say that the Ahar and the Navdatoli culture were colonizations from outside India, still it is necessary to point out the general reaction, practically all over the world, among scholars and others, against such an attempt to seek an explanation for cultural changes at a site, to outside foreign influences, be it as diffusion or actual biological contact, invasion, migration or trade. Several authors have shown by various kinds of study, such as spectography, detailed analysis of techniques that many of the earlier views based on general resemblances between objects, say in England and Europe or Egypt and Crete, were based on very insecure foundations. And very often the explanation or the understanding of the origin of prehistoric cultures might be found in the archaeological record itself. This has been shown by Professors Graham Clark, Walter Adams, and Lewis Binford.

Thus the old views of Elliot Smith, Gordon Childe and even Braidwood (who tried to seek the origins of agriculture and domestication of animals and the beginning of civilization in the supposed nuclear area of Western Asia), by a joint expedition (archaeological, botanical, zoological) are no longer regarded as sacrosanct. It is, therefore, possible that when further work is done in India, we may find the origins of the various regional prehistoric cultures discovered during last 25 years within India itself. Though my personal belief, or call it a hunch, is that what has happened during the historical times had also happened during the various prehistoric periods. And it is by the interaction of these foreign—outside—forces and the forces within the country that the various Chalcolithic cultures were born. These regional cultures, at present known by very prosaic names after the type-sites or the pottery fabric such as Ahar or Banas, Navdatoli, Jorwe—Nevasa and the P. G. W. do not represent only distinct pottery groups or functional needs of the respective groups of people but these are probably distinct ethnic and linguistic entities and these are possibly the forerunners of the linguistic units in which India is divided today. Of course, in these Andhra, Karnataka and Tamil Nadu would form one large ethno-linguistic grup or block, Jorwe-Nevasa might be proto-Marathi,

Navdatoli would be proto-Malwa and Ahar proto—Rajasthan. Similar would be the story in Saurashtra and the Harappans would thus from a large culture-linguistic group.

It should be one of the main goals of the archaeologists and culture-historians in the next decade to try to understand how far this view or prophecy is correct

LITERARY EVIDENCE

All the earlier writers on this question have rarely posed the question and defined what they mean by colonization, and then cared to enquire what would be the likely consequnences of accepting the hypothesis that India was colonized either by the Aryans or the various Vedic or Puranic tribes.

But was there colonization at all ? and that from out side India ? On these fundamental question there are two schools of thought. Not only orthodox scholars of Sanskrit and Hinduism but even the late K. M. Munshi once thought that the view that the Aryans came to India from Iran had no basis whatsoever. And one argument they put forward was that those people who had migrated had always remembered that fact that they had once belonged to another country or region. They cited the example of the Parsis, among comparatively recent migrants, and the ancient Egyptians and Sumerians among the prehistoric people. But no such statement, even a hint is found either in the Vedic of Puranic literature. Hence Munshi said that if the Aryans had ever come from outside, it was such a long time ago, that they had lost memory of it.

Other argumants have also been advanced to controvert the theory of Aryan migration based on the nature of the language of the Rigveda and its close affinity to the Avesta, the occurrence of the names of Vedic Gods, Mitra and Varuna in the 14th Century B. C. Boghazkuei inscription and the absence of the tiger in Vedic literature. These views have been summarised in an Appendix in the latest edition of the *Vedic Age*, published by the Bharatiya Vidya Bhavan.[1]

As opposed to this, not only foreign scholars but champions of Hinduism and Independence like Tilak and modern scholars like A. S. Allekar, A.D. Pusalkar, S. N. Pradhan and Professor Bhargava have accepted the view that the Aryans had come from outside and gradually settted in India. The question is from where, when and how, and what were the likely consequences? Unfortunately, none of these scholars, ever cared to pose these questions. This was natural. They were primarily Sanskrists and not historians or if so, they never worried to examine, except Altekar to some extent, what would be the effect of their theory of colonization, if we were to accept it. Secondly, when scholars like Pargiter wrote, there was no archaeological evidence at all. The great Indus Civilization was still buried in the womb of the earth. So we can scarcely blame Pradhan who published his *Chronology of Ancient India* in 1927. The things were otherwise when Bhargava first published his *India in the Vedic Age*, and then Altekar discussed this problem in his Presidential Address, or when Pusalkar treated the pro-

1. Majumdar, R.C., (Ed). *The Vedic Age*, History and Culture of the Indian People, Vol. I, London, 1957, pp. 230-31.

blem at some length in the *Vedic Age* first in 1951 and again in the *Purana* in 1964. But since none of these scholars had access to the fast growing archaeological evidence from different parts of India, they have almost left out of consideration except, accepting the view that the Indus Civilization was pre-Aryan and the Aryans somehow destroyed it.

I have been interested in this problem since long, and have tried to correlate the archaeological evidence with the literary, as evidences beagan to come forth from our excavations at Nasik and Navdatoli in 1950-1953.

Since then I have discussed this problem thrice, first at the seminar on Indian Prehistory held at Poona in 1964, then in the first and second editions of my book *Prehistory and Protohistory of India and Pakistan* and recently in an international journal, *World Archaeology*. For, I belive that this question cannot be solved single—handed, either by archaeologists, or Sanskritists, ethnographers or culture-historians. The problem is indeed complex, and we are likely to be side-tracked, whereas the problem, as I will show, needs all the time an open mind.

Among the scholars who accept the view that the Aryans had come from outside and who have relied on a careful comparative study—called synchronisms—between the Vedic and Puranic evidence, there is no complete unanimity of views. Both the groups of scholars, however, believe that whereas the Vedic evidence is far more trustworthy, the the Puranic can or should be accepted, when and where it is corroborated by the Vedic. One major point of difference is the probable date of the Mahabharata War. Whereas Pradhan and Pusalkar have placed it in *c.* 1400 B. C., Pargiter and Bhargava would do so in about 1000 B. C. Though this does make some difference, as to the identity of the people, or tribes in about 1000 B. C. or 1400 B. C. in the Punjab, and U. P. and elsewhere too, still it does not affect the basic fact, that there was a gradual colonization of India, by the Aryans from the north-west, who later proceeded eastwards, and then in the heart of India.

Let us now see what would be the nature of the political set up according to these scholars and then examine it in the light of what we know about these regins archaeologically.

The Rigveda only incidentally mentions the names of tribes which had settled or existed at the time of its latest composition. It is not a historical account in the modern sense. So a careful consideration of it shows that "the whole of the territory known to the Vedic settlers was divided into a number of tribal principalities ruled normally by kings.[1]

"The extent of the country, as reflected in the hymns is Afghanistan, the Punjab parts of Sind and Rajputana, the North West Frontier Province, Kashmir and Eastern India up to the Sarayu." The Vedic people had not yet penetrated into the swampy jungles of Bengal, as would appear from the non-mention of the tiger in the Rigveda. "Roughly speaking the extreme north-west was occupied by the Gandharas, Pakthas, Alinas, Bhalanasas and Vishanins, some of whom contained the non-Aryan elements.

1. *Ibid*.,p. 249

In Sind, and the Punjab, were settled the Sivas, Parsus, Kekayas, Vrichivants, Yadus, Anus, Turvasus and Druhyus.

'Further east, towards the region of the Madhyadesa were the settlements of the Tritsus, Bharatas, Purus, and Srinjayas, the easternmost part being in occupation of the Kikatas. The Matsyas and Chedis were settled to the South of the Punjab in Rajputana and Malwa. Hence Pusalkar concluded that the Aryan settlements during the period of the Rigveda were practically coterminous with the extent of the geographical knowledge of the period, as mentioned above.[1]

During the period of the Later *Samhitas*, *Brahmanas*, *Upanishads*, and *Sutras* more areas were colonized. Pusalkar characterizes this period as the one of a spirit of adventure and expansion, and the advancing Aryans were spreading in every direction, colonizing to the east, south and north.

The Ganga *doab* was completely occupied by the Aryans and the adventurous Bharatas and Videhas led expeditions along the Yamuna, the Sarasvati and the Sadanira. Towards the east, Kosala, Videha, Magadha, and Anga came under Aryan occupation during this period.

In the north and the north-west, we come across the Uttarakurus and the Uttaramadras, Bahlikas, Mahavrishas and Mujavants showing the expansion along Kashmir and the Himalyas. Towards the south the Vindhya apperars for the first time in the *Kausitaki Upanished* (11.8), and the Kuntis and Vitahavyas seem to have penetrated further south, and the Narmada and Vidarbha also were within the Aryan fold.[2]

The geographical (topographical) politico-cultural changes during this period should be noted or emphasized, as these might have some bearing from the archeological point of view.

First the Sarasvati is said to have disappeared according to the *Panchavimasa Brahmana* (XXV, 106).

"The main centre of the life of the period is Kurushetra in the country of the Kuru—Panchalas, bounded by the Khandava on the south, Turghhna on the north, and parinah on the west."[3]

The centre of civilization has gradually shifted east-wards, and is now localized in the modern Haryana region, around Delhi.

The Punjab and the west not only declined in importance, but the tribes of the west are looked upon with disapproval in the *Satapatha and Aitareya Brahmanas.*

There has been a change and regrouping of tribes of the Rigvedic period, and many new tribes emerage during this period.

The Bharatas merge with the Kurus, who with their allies, the Panchalas, are the tribe par excellence.

1. *Ibid.*, p. 254
2. *Ibid.*, p. 266
3. *Ibid.*

The Vasas and Usinaras, the Kuru-Panchalas occupy the Madhyadesa.

The Uttarakurus and Uttarammadras lay to the north beyond the Himalyas, and Satvants, to the south

To the east come up Kosala, Videha, Magadha and Anga. Non-Aryan, or not fully Brahmanized tribes mentioned are the Andhras, Pundras, Mutibas and Sabaras as also the Nishadas.

Thus at end of the Upanishadic period, the whole of India to the north of the Narmada, and some region even to the south of this river had been Aryanized, or come under the Aryan influence.[1]

Pusalkar, unlike Bhargava and Sita Nath Pradhan, reconstructed the traditional history from the Puranas and the epics, separataly, at the sametime relying upon the Puranic accounts when they are corroborated by the Vedic texts.[2] There is also the fact, stressed by Altekar and Pusalkar before, to which would subscribe, that the Puranic genealogy cannot be a figment of imagination of the Sutas, though there is certainly much repetion of names. Secondly, these names are characteristic of the Vedic and Puranic periods, that they rarely occur later. So had all or many of the proper names of persons, as those of places, rivers and mountains, had definitely some physical existence.

What is most likely is overlapping of names and dynasties or contemporaneity and not chronological succession. Thus the period, as worked our by the Puranas would be very much reduced.

Dynastic or political history according to the Puranas broady falls into two main periods.[3]

1. Dynasties before the Flood.
2. Dynasties after the Flood.

1. The Flood is calculated to have occurred somewhere in the North, about 3100 B. C. The ruler at that time was Manu Vaviasvata. He is said to be the originator of the human race and all the dynasties mentioned in the Puranas sprang from him. Of his 9 sons, 4 were imporant, as they were the founders of the four kingdoms and dynasties.

1. Ikshavaku at Ayodhya,
2. Saryati in Anarta,
3. Nabhagodishta at Vaisali in north Bihar,
4. Karusha occupied the Karusha country around Rewa. From Ila married to Budha started the Aila dynasty. From this sprang up the various dynasties as Kanyakubjas, Yadavas (Haihayas, Andhakas and Vrishnis) Turvasus, Druhyus, Anavas, Panchalas, Barhadrathas, Chedis. From Ila, transformed into a Kimpurusha namcd Sudyumna sprang the Sudyumnas—his three sons Utkala, Gaya and Vinatasva, who respeetively ruled over the Utkala country, Gaya and the eastern regions. Pusalkar has then divided the entire post-Flood period into several periods, according to the chief

1. *Ibid.*
2. *Ibid.*
3. *Ibid.* p. 272

or important kings. Thus we have the Yayati Period (*c.* 3000-2750 B. C.). Yayatis' five sons—Yadu, Turvasu, Anu, Druhyu and Puru, carved out several small kingdoms, the main being at Pratisthana (Allahabad). Yadu, ruled over the region of the south-west embracing the country watered by the rivers Charmanavati, (Chambal), Vetravati, (Betwa) and Suklimati (Ken); Turvasu ruled around Rewa; Druhyu's kingdom west of the Yamuna and north of the Chambal. Anu received the north, i.e. the northern portion of the Ganga-Yamuna *doab*.

The Yadavas (from Yadu) destroyed the Rakshasa power in Gujarat—Kathiwar. They later branched into the Yadavas and Haihayas. In the Solar dynasty at this period, Ikshvaku, the eldest of the Manu's sons ruled Ayodhya, the capital of Madhyadesa. From his other son Nimi, also known as Videha, and named after his son Mithi we have Mithila and Videha, whereas one of Manu's grandson Visala found Visala of Vaisali.

Saryata, another of Manu's sons was succeeded by his son Anarta, after him a part of Gujarat—Saurashtra—came to be so called. The dynasty was short-lived, and was destroyed by Punyajana Rakshasas.

In the next sub period called " The Mandhatri period *c.* 2750-2550 B. C." Mandhatri and his son Purukutsa conquered the Druhyus and Anvas in the north-west and the Nagas gave him their princess Narmada.

This shows, says Pusalkar the extension of the Aryan culture towards the river Narmada and the land of the Nagas. Later Mandhatri's son Muchukanda built and fortified a town on the Narmada between Paripatra and Riksha mountains. This was later conquered by the Haihaya king Mahishmant who named it Mahismati. Later the Haihayas under Bhadrasrenya marched eastwards and conquered Kasi, which was sometime still later conquered by the Kshemaka Rakshasas, and recovered by Durdama of the Haihayas.

Descendents of Anu, of the Puru or the Aila Lunar Dynasty, extended their sway towards the east (?) and the Punjab. Later Usinara established a kingdom on the eastern border of the Punjab which was divided among his five sons. Of these Sibi is well-known and ruled at Multan, whereas from Nriga sprang the Yaudheyas who ruled parts of Bikaner and the present Montgomery district. Later Sibi is said to have conquered the whole of the Punjab, and established through his sons four kingdoms, the names of which are important for our purpose. These are :

(i) The Sibis (or Vrishadarbhas) in the home province of Multan;
(ii) The Sauviras of Sind;
(iii) The Kekayas in the modern district of Gujarat and Shahpur between the Jhelum and the Chenab; and
(iv) The Madrakas, with their capital at Sakala (modern Sialkot) in the Lahore division of the Punjab (Pakistan), and Jammu province in Kashmir.[1]

1. *Ibid.* p. 283

Titikshu is credited with the foundation of "the Kingdom of the East," after having crossed Videha and Vaisali. This later developed in to the five kingdoms of Anga, Vanga, Kalinga, Pundra and Suhma, said to be five sons of Bali.

The Drhuyus are said to have been pushed out from Rajasthan into the Punjab, where their settlements came to be known as Gandhara after one of Angara's successors. Later they are said to have corssed the borders of India and founded many principalities in the *Mlechchha* countries.

This expansion of the Aryans from the Madhyadesa, first into the Punjab, and then beyond India's north-west frontier is palpably unbelievable. And hence, one has to say that the Puranas have deliberately tried to invent the explanations of the various divisions of the Punjab and even Sind. We shall see later what would be the significance of this Aryan expansion *vis-a-vis* archaeology.

The next period, according to Pusalkar's interpretation of the Puranic and Vedic data is "the Parasurama Period *c.* 2550-2350 B. C." The events through skillfully summarized by him appear most bizzare. These 200 years were taken up by the conflict between the Bhrigus and the Haihayas. Interestingly enough, both these are said to be originally friendly, the former being priestly Brahmanas, and the latter Kshatriya rulers, and both originally belonged to Western India: From here the Haihayaas, with the help of the Bhrigus, conquered Mahishmati on the Narmada and later carried their expedition earstwards up to Ayodhya. Ultimately after the long and bitter struggle between the Bhrigus and the Haihayas, Rama of the Solar dynasty once again established the supremacy of the Kshatriyas, and Parasurama retired to the west, where the entire coast from Bharach to Kanyakumari is said to have been reclaimed by him from the sea. From our point of view, what is important are the conquest of Mahishmati by the the Haihayas, their alleged conquests of east up to Ayodhya, the survival of the Kashatriya kingdoms of Ayodhya, Magadha, Anga and Kasi from the uiversal destruction by Parasurama and and the emergence of the west coast.

If there is any truth in these Puranic accounts, we should find some evidence of the cultural influence from western India into eastern India. For instance, the echoes of the Navdatoli-Maheshwar Chalcolithic culture in the recently discovered Ganga-Chalcolithic. Also, some evidence of the Centeral Indian Chalcolithic on the West Coast. But far more interesting it would be, if we can correlate the alleged rise of the Haihayas in the west, and belief that the Bhargavas were some foreign westerners who intially helped the Haihayas in establishing a kingdom on the Narmada at Mahishmati. The Puranas also tell us that the Haihayas had attacked, Ayodhya with the help of the Sakas, Yavanas, Kambojas, Paradas and Pahlavas from the north-west. Later, of course Sagara with the help of the Bhargavas, retrieved much of the lost kingdom.

The history of the Solar dynasty at Ayodhya under Sagara, his conquest of the Haihayas, and their allies the Sakas, Yavanas, would be likewise significant, were we to get some archaeological evidence of the eastern cultural influences in the West.

Anyway, Ayodhya when excavated should give us thick deposits and the earliest should go back to at least 2500 B. C. The depsits at Champapuri, near Bhagalpur in east Bihar which is said to have been built by Champa, grandson of Harischandra, should be fairly deep and old.

According to the Purnas, with the wars of Parasurama and Sagara, the *Kritayuga* came to an end. As a result of these wars "The Ramchandra Period" (c.2350 B. C.-1950 B.C.) is notable for the appearance of the Ganga and Bhagiaratha.

Of the various kings Raghu gave his name to the family, whereas under Dasaratha, because of his conquests, Ayodhya once again come into contact with the Yadava kingdom at Mathura, founded by Madhu, whereas in the *Doab* there were Paurava States of which north Panchala was prominent. To its east lay Videha Vaisali and Anga, and the Vatsa country which formed part of Kasi, lay to its south. The region south from the Yamuna upto Gujarat and beyond the the Vindhya and the Satpura mountains was under the Yadava emperor Madhu.

Pusalkar[1] (as well as Bhargava) believes that the story of Rama important because it brings south India definitely into view for the first time. This as has been pointed out by me elsewhere[2] is based on wrong interpretation of the Ramayana data as well as evidence which is interpreted incorrectly. However, let us proceed to narrate the Epic-Puranic evidence as to what happened afterwards.

We are told that Lakshmana's two sons Angada and Chandraketu were assigned the Karapatha *desa* near the Himalayas, and Bharata's two sons Taksha and Pushkara, conquered Gandhara from the Gandharvas and founded respectively Takshasila and Pushkalavati. Satrughna defeated the Satvata-Yadavas on the west of Yamuna, killed Madhava Lavana, and established his capital at Madhupuri (Madhura) or Madhura. Rama's two sons Kusa and Lava ruled in Ayodhya and Sravasti respectively.

However, very soon, all these were lost. the Ishvakus or the Raghavas are heard of no more and Paurvas and Yadavas become the most important dynasties in northern India.

In the Lunar Dynasty, according to the Puranas, Dushyanta's son Bharata was a famous king. The capital was transferred from Pratishthana to the city called Hastinapura, while his dominions stretched from the Ganga to the Sarasvati, while some Puranas attribute the name Bharatavarsha to this Bharata.

Later, under Bharata's descendents the 'empire' was split up. Riksha ruled at Hastinapura, while the eastern territory was divided into northern and southern Panchala. Further south, Bhimaratha, the father of Damayanti of main Yadava line ruled in Vidarbha, whereas Bhima Satvata regained Mathura from Satrughna's son Subahu.

With Rama's coronation ended the *Treta Yuga* and *Dvapara* started. This coincides with the Krishna period *c.* 1950-1400 B. C.

1. *Ibid*, p. 294.
2. Sankalia H. D., *Ramayana : Myth or Reality*, New Delhi, 1973.

Until the Bharata War, three families—the Panchalas, Pauravas and Yadavas, dominate the scene. Sometimes, there are fights among each of these families, as between the north and south Panchala, and Pauravas. Kuru of the latter dynasty is said to have sacrificed at Prayaga and it was after him that Kurkshetra and Kuru-Jangala, that is the cultivated and uncultivated land or country came to be so called, and the family named after him.

Sudhanvan, Kuru's youngest son gave rise to two branches of the family known as the Chedi and the Magadha. Later, Vasu, the fourth successor of Sudhanvan conquered the Chedi kingdom from the Yadavas. His capital Suktimati was on the river of the same name, now known as the Ken. Later he conquered Magadha and possibly Matsya. His five sons established separate kindoms: Brihadratha in Magadha, Kusa at Kusambi, Yadu at Karusha and Partyagraha at Chedi. Later the Brihad-rathas dominate the history of northern India, first under Jarasandha they drove out the Yadavas and Bhojas from Mathura.

The large Yadava kingdom was ruled over by Bhima Satvata and his four sons: Bhajamana, Devaridha, Andhaka and Vrishni. It is these with the earlier Yadava families of the Yadavas still known as Satvatas and the branches and sub-branches of the Pauravas mentioned earlier which ultimately figure in the Bharata war. It is not necessary to follow their fortunes separately. Enough if we know who were the principal participants on the side of the Kauravas and Pandavas respectively.

The whole of eastern Magadha, Videha, Anga, Vanga and Kalinga which were under Karna joined the Kauravas. But Sahadeva, a son of Jarasandha ruling in western Magadha was on the side of Pandavas.

The Kiratas under Chagadatta of Pragjyotisha, supported the Kauravas. So also Brihadbala, king of the Kosalas. The various rulers in Madhyadesa, of Vatsa, Kasi, Chedi, Karusha, Dasarna and Panchala were on the side of the Pandavas.

The large Yadava family was divided in their allegiance. Yayudhana and Satyaki among the Vrishnis and Yadavas, came to the Pandavas, while Nila of Mahish-mati, Vinda and Anavinda of Avanti, Kritavarman of the Bhoja Andhaka-Vrishnis, Vidarbha, Nishada and Salya supported Duryodhana, the Kaurava chief.

The Punjab and the north-west viz., Jayadratha of Sindhu-Saurvira, Sakuni of Gandhara, Susarma of Trigarta, Kekeya of Sibi, Salya of Madra, Vahilikal, Kshudraka, Malava, Sritayu of the Ambashthas and Sudakshina of the Kambojas were wholly with Kauravas, Only Abhisara said to be forming south-western part of Kashmir had joined the Pandavas.

In short broadly speaking the Madhyadesa and Gujarat stood for the Pandavas; while the rest viz. east, north-west and western India opposed them.

Pusalkar's is a balanced treatment of the Vedic and Puranic, including the epic, evidence. Hence we shall discuss it *vis-a-vis* the archaeological evidence.

Before entering into a discussion regarding the nature of the colonization, or the significance of the Vedic-Puranic settlements and the Chalcolithic settlements, we must cite and endorse Pusalkar's views about the reliability of the Puranic evidence. As he has rightly pointed out there is nothing like the Brahmanic tradition (as represented by the Vedas), and Kshatriya tradition (as represented by the Puranas and epics), for the latter do hold the Brahmanas in high esteem. At the sametime it is equally true that whereas the Vedic texts are comparatively less tampered with, and hence the interpolations are few, the Puranas and the epics are not so, yet they alone contain something like a continuous historical narrative and it is absured to suppose that the elaborate genealogies were all merely figment of imagination or tissues of falsehoods. For these people (Sutas) did not know that we in the 20th century after Christ would not believe them. They wrote or recited for their readers and audience, which certainly was in a much better position to judge about the veracity of the accounts they were reading or listening to than what we can do. But while granting this, we must also point out that such recitations repeated over centuries did give an opportunity to the poet (story-teller) to add or substract a few things or incidents or names. Under these circumstances, what we propose to do is to rely on the archaeological data, chronology, culture—data, etc., as given by the recent excavations rather than date the archaeological evidence by the Puranic data. Thus years ago, some scholars sought to date the Maheshwar-Navadatoli Culture to 3000 B.C. and credited it to the Haihaya emperor Sahasrajuna.

While one might do this, one must also be prepared to accept the implications of this attribution. The most unwelcome result is that we shall have to imagine that the mighty Sahasrarjuna fought with arrows and spears tipped with tiny microliths! But this is a thing we cannot escape. We shall, therefore, examine the implieations of a likely correlation between the archaeological data and the traditional data from the point of view of colonization as well as the technological and cultural development in India.

In the first place, neither the Vedic nor the Puranic accounts are against the idea of colonization. While they do not specifically use any expression for this "Western" concept, they do maintain that in the remote past, before the Flood, India was more or less an empty land and gradually settled by the sons and grandsons of Vaivasvata Manu. This process lasted for nearly 2000 years, if we place the Flood about 3500 B. C. and the Bharata war in about 1400 B. C. But by the 15th century or 1000 B. C. if we accept Bhargava's and Pargiter's dating of the Bharata war, then the political geography of the whole of northern India, had assumed the form that we witness about the 5th century B. C. However, in this picture we have to note two things. Though during Rama's time south India is supposed to have become known for the first time, there is no mention of any kingdom except Vidarbha, south of the Vindhyas and the Narmada, either in Andhra, Maharashtra or Karnataka, let alone Kerala and Tamil Nadu. Thus south India had still remained outside the Aryan impact. In fact, we do not know, nor we are told who the rulers of this large mass of land were! Secondly, the Vedic and the Puranic data

is not specific enough about the cultural differences, if any, between the various Aryan kingdoms, either in the *Krita, Terta, Dvapara yugas* or the various Ages or Periods named by Pusalkar. No doubt, there is the occasional mention of the acquisition of new *astras*—not *sastras*, by Arjuna, or Karna, no reference to the development in town-planning, agriculture, domestication of animals and the daily life led by the people, their food, dress and ornaments, even their religion!

As against this traditional picture, the picture reconstructed by archaeology during the last 25 years or 50 years is certainly more detailed, though we sorely miss the identity of the authors of the various regional and sub-regional cultures.

Two or three things are, however, remarkable to which renewed attention is drawn. If we leave out the various Baluchi cultures known so far by their pottery fabrics or site names only, then we find that by about 3000 B.C., a culture known at present as pre-Harappan or Early Harappan, or by the site names, Harappa—I, Kalibangan-I, Kot Diji-I, Gumla-2 had come into existence and gradually spread. The C-14 dates suggest a period of 500 years or more for this expansion. As far as known except for some differences in pottery fabrics and forms between the various excavated sites, there is no vital difference in the use of lithic equipment. But it is noteworthy that at no site, chert or the Sukkur-Rohri flint was used. Though a ploughed field of this period is known from Kalibangan, we do not know whether wheat, barely and seasamum were eaten, and the settlers, as shown by Kot Diji-I and Kalibangan-I were not simple villagers, but early town-folk having mud-brick fortification round their settlement.

Who were these people ? We do not know. But they could be from Iran or were a people who had greater affinity with those from Iran, as shown by the designs and some forms and techniques at Kalibangan-I. If we now think in terms of the literary data, the pre-Harappans might be equated with the Early Aryan expansion, according to the purely Vedic data, or even according to the Vedic-Puranic data as interpreted by Bhargava.

If we are not inclined to accept this correlation, then shall we equate the Harappan itself with the Vedic Aryan ? Mind you, except the fact that the Harappan culture shows a great uniformity, even in its wide expanse, as does the Vedic at the end of the first phase of its expansion, we have no data for a detailed comparison.

Equally significant is the fact that as during the next phase Madhyadesa, that is the Ganga-Yamuna *doab* become all important, and the west gradually sunk into insignificance so much so that it was looked down upon by the Aryans of the Madhyadesa! Of course, this inference or interpretation of the archaeological evidence is at present based on the slender data from Haryana and east Punjab and some reports from Sind and west Punjab in Pakistan. But even in the latter, according to the latest information received from Dr Rafique Mughal,[1] several sites of Cemetery-H have been discovered in west Punjab. However, the widespread existence of this culture after the Harappan

4. Mughal, *op. cit.*

does not necessarily prove its continuance, say, after 1500 B.C. Hence, as the Late Vedic texts tell us the Early Vedic Culture was disappearing after a lapse of nearly 1000 years from the west, north-west! The Sarasvati which was known for its ghee and milk was drying up. Thus, there is a superficial correspondence between the Vedic evidence as interpreted by Pusalkar, or both the Vedic and Puranic as interpreted by Bhargava, and the available archaeological evidence! At present, there is real dearth of archaeological evidence, because no site of this period (Cemetery-H) is excavated either in India or Pakistan. And the long gap, say of 500 or 700 years between 1500 B.C. and 800 B.C. cannot be filled up by the Painted Grey Ware, for the simple reason, that we know really little about it, and secondly, it does not seem to go back beyond 800 B.C. at the most. Thus the period between 1500 B.C. and 800 B.C. is archaeologically unknown in northern India.[1]

Anyway, let us see how the presence of the PGW may be explained traditionally. Soon after its discovery B. B. Lal ascribed this Ware and the associated culture to the Early Aryans, because according to him, the then dating of this Ware fitted in very well with the supposed arrival of the Aryans in India by *c.* 1200 B. C. Lal also attributed this ware to the Mahabharata war period. Since then several C-14 dates from Hastinapura and elsewhere have firmly placed the PGW between 800 B.C. and 400 B.C. It has also been shown convincingly by Dr G. G. Mujumdar[2] that the PGW is essentially a local product of the Gangetic *doab*, and in no way foreign-oriented. Further it heralds as far as the associated objects are concerned, as I have shown, the dawn of the Early Historic period.[3]

Accepting the majority view that the PGW has to be dated between 800 B.C. —400 B.C. let us see how its wide distribution—from the borders of Bihar in the east to Bikaner in northern Rajastban in the west, and from Ujjain in the south to Ropar in the north, may be interpreted according to the Vedic-Puranic view of colonization.

Accepting the Puranic view that the Aryans originated somewhere in mid-westen U.P. around Pratisthana or Allahabad and spread in all directions, we find that this view fits in suprisingly well with the present known origin and distribution and nature of the PGW and the associated Early Iron age culture. Though we do not know the names of the various rulers at this time except through the Puranas and late Vedic texts, like the Brahmanas and Upanishads, we might say that the Puranas had probably in view the rise and spread of the PGW culture and its authors. Though it is not proper nor legitimate to infer about the social characteristics of the users or authors of the PGW and the associated objects, still it is not impossible that at least the ruling families, if not the ruled, belonged to one racial stock as the Puranas tell us.

If this view is accepted then it would show that the Puranic tradition through true to some extent, is late and does not or cannot go beyond a few centuries before the

1. Recent excavations at Bhagwanpura, Haryana by the Archaeological Survey has changed the picture (Eds.).
2. Personal communication.
3. Sankalia, H.D. *Puratattva*, No. 7, 1974, p. 52.

Christian era. All the early accounts, purporting to go back to 3000 B. C. are imaginary.

Secondly, even if this corollary is accepted it would show that even according to this view of Aryan expansion, the Deccan proper or Maharashtra and the South, lay outside the pale of Aryan occupation or influence, (though Sita Nath Pradhan's interpretation of the Vedic and Puranic evidence does show Aryan colonies in the Deccan by the Rig Vedic period). This statement is quite vague.[1] But according to Bhargava, Pargiter and Pusalkar the Deccan and the South were not penetrated by the Aryans or people from the North until very late, that is the beginning of the early historical period.

We may tabulate the various hypotheses as follows : [2]

I COLONIZATION ACCORDING TO BHARGAVA

A. Aryans entered India after the Flood in *c.* 3000 B.C. and spread in the Saptasindhu

B. Harappan culture pre-Aryan. But we have still to discover what the material culture of the invading Aryans was.

AA. Archaeologically Baluchistan, NWFP culture upto *c.* 3000 B.C. would be pre-Aryan.

On the contrary if we regard the Harappan culture as Aryan, then the various Baluchi and per-Harappan would be pre-Aryan; then we can explain very well the subsequent spread of the Harappan culture in the Punjab, U.P., NWFP, Gujarat and Saurashtra and its subsequent decay or disappearance by about 1700 or 1500 B.C. This would be the traditional drying up of the Sarasvati.

Thus we arrive at a novel way of interpreting the Harappa culture as far as its authorship is concerned. The question, will the decipherment of the script bear this out? Though the majority view is against its Aryan ascripion both the Roas-Krishna and Surya-from their reading of the script have concluded that the script is proto-Brahmi and its contents Puranic-Vedic. So also is the recent intepretation by Hajra.

II. COLONIZATION ACCORDING TO PUSALKAR

This is not quite different from that of Bhargava, as far as the interpretation of the purely Vedic evidence is concerned. Evan Pradhan also thought that the Aryans had colonized Kasi-Videha and even Anga.[3] However, we may add that if we regard the Harappan as Aryan, then both at Kot Diji and Gumla, and possibly at many other sites, there are signs of destruction of the pre-Harappan occupation by fire. Thus, there is some archaeological evidence, if required, for the destruction of the pre-Aryan by the Aryan, though at Kalibangan, a peaceful co-existence of both the cultures is postulated.

1. Pradhan, *op. cit.*, p. 202.
2. In this no dates have been given except the first, viz. *c.* 3000 B.C. because whether we accept the view of Cunningham School, *c.* 1400 B.C. or *c.* 1000 B.C. according to Pargiter, the date of the Bharata War, no fundamental difference will take place regarding the rest.
3. Pradhan, *op. cit.*, p. 208.

III. COLONIZATION ACCORDING TO PARGITER AND PUSALKAR

A. Origin or beginning in mid-eastern India, and spread in north, south, east and west.

This view is against the present archaeological evidence in its entirety, for as far as we know, all the earlier cultures are so far found from Baluchistan and Afghanistan and soon after in Sind, the Punjab and northern Rajasthan.

But, as explained before, Pargiter's view would very well suit the likely origin and spread of the Painted Grey Ware Culture and the various other pottery cultures such as the black-slipped and black-and-red ware found at various sites in U.P., Bihar and West Bengal, might be regarded as antecedent cultures belonging to various indigenous people, particulary the Sudyumnas or the Easterners which even the Puranas find it difficult to explain and have invented an interesting story of Ila's transformation to male/female forms! [1] While the culture flourishing before the Great Flood might be the Ochre Coloured Ware or that of the Copper Hoard. There is increasing evidence from Saipai, Lal Qila and Atranjkhera excavations as well as numerous sites in the various western districts of U.P.—Kanpur, Lucknow, Meerut, Saharanpur, Mazaffarpur—that this culture was washed away by a flood. Thus if we accept this line of thinking then both the pre-Flood and post-Flood Puranic dynastic accounts find corroborations in archaeology. Though the dates of the accounts do not tally, it does not matter much. For, in the first place, we have no exact dates, so far from the various pottery cultures, while some exaggeration, or high dating in Puranic accounts is expected. Pargiter's further argument that his theory of Madhyadesa around Allahabad as the original home of the Aryans (the Ailas) no way goes against Grierson's theory of the "Outer and the Inner Band" of Aryans[2] might also be corroborated by this interpretation of the archaeological evidence. The present interpretation of the archaeological and literary evidence fully answers point No. 5 of Pargiter.[3]

However, if any one wants to corroborate it fully then he has to dig at Kausambi or some other site, and there are numerous, and to show stratigaphically, culturally and chronologically that the first steps in the birth and development of civilization were taken in this part of the Indian sub-continent and not in the north-west! This is indeed a challenge and the Universities in U.P. should take it up.

I think, we have had enough of this speculation. Those scholars who are interested in the further follow-up of any particular interpretation might name the various regional and sub-regional cultures after the Vedic or Puranic tribes, as the late Dr Kosambi proposed to name the painted Grey Ware at Hastinapura as "Puru Culture."

Before we close this discussion we must again draw the attention of the scholars

1. Other explanations are similar and it would be interesting if all these are gathered together and examined ethno-archaeologically.
2. Pargiter, *op. cit.*, p. 226.
3. *Ibid.*, p. 302.

that, however, much we may distrust the traditional accounts, and not rely much on speculation based on it, one had to recognize that this is an ancient land, where the traditions have survived in however distorted a form, and, therefore, the traditional accounts-both Vedic and Puranic-do contain a grain of truth which we must endeavour to discover by long and continuous sieving.

Since the subject of this symposium is "Archaeology and Tradition", I would also draw attention to two of my papers where I have shown how our excavations at Dwaraka and Tewar (Tripuri) beautiflly illuminate the epic and Puranic accounts of these cities.

In the wake of these excavations and their significance, comes the discovery of the Naga temple and sculptures by Dr Hertel at Sonkh near Mathura. These discoveries should be understood in a much larger context.

The Puranas and the Mahabharata contain accounts of small and larger Naga settlements all over north India from Taxila and Pushkalavti to Gwalior or Padmavati in Madhya Pradesh. The Sarpayajna performed by Janamejaya and the ouster of the Kaliya Naga from Mathura by Krishna is well known. The late K. P. Jawaswal had already postulated the existence of a Naga empire before the Vakataka-Gupta empire in the 4th century A. D. during the so "called Dark" Period of Indian history viz. 2nd-3rd century A. D.

The discovery at Sonkh gives a new edge to this view, affording further proof of a once flourishing Naga cult and its patrons in many parts of Northern and Central India.

It would appear that both the Sakas, Kushanas had occasionally to fight with these people, until all were absorded in the resulting Puranic or Hindu Culture.

As far as Mathura and its environs are concerned, it would appear that it was Krishna who was responsible for ousting the Naga Cult or rule from that region. For, as far as we know the rising Krishna cult had no difficulty or quarrel with the existing Jaina and Buddhist cults in Mathura. For there is hardly any reference to these in the epics and the Puranas. Probably, the Krishna-Vishnu cult-achieved one further success. It fully absorbed the Naga cult by accepting Samkarshana and Ananta, though in each case, these got a slightly lower position than Krishna. It is due to this compromise that we owe the grand conception of Vishnu lying on Sesha or Ananta, and its rendering in sculpture by the 4th century A. D. The earliest image we have so far is at Deogarh in Central India, once the heart of the Naga empire.

It is difficult to say who these "Nagas" were. A study of the personal names in early inscripitions of northern India and the Deccan had shown that it was a general practice to add the suffix Gupta, Mitra, Data to the name proper of a man or woman, thus showing what god the person worshipped. In the case of persons bearing Naga or Sarpa as the first part of the name, we do not find such suffixes, though we do find a

name like Nagapalita.[1] Thus it is not clear whether they were former devotees of a Naga or Sapra. But if we assume that since considerable time had elapsed when these people or familes were worshippers of Naga, and hence the suffixes have been dropped then such names as Ganapatinaga, and Kuberanaga which appear in the inscriptions of the 4th-5th century A. D., show that these are indeed the remnants of a once flourishing and popular Naga cult.

That this Naga cult was very ancient has been realized by Jitendranath Banerjea from the references in the Rig, Yajur and Atharvavedas.[2] This antiquity now finds confirmation in the discovery of numerous figurines of snake goddess in terracottas from Gumla and other sites in NWFP in Pakistan; though so far no such figurines have been found from the classical Indus Valley sites, nor from the newly found sites in India. Those from Gumla are said to be pre-Harappan, that is at least before 2500 B.C. Thus a long period of symbiosis seems to lie before the principal Naga families were absorbed in the ever expanding Hindu fold. And the peculiar flexibility of the latter is best revealed by the observance of the *Nagapanchami* during the month of *Sravana* (bright half August-September) every year, when *Nagas* are worshipped and fed with milk. Thus one of the most ancient folk cult lives with the most advanced philosophies about God and the world in India, and the symbiosis—action, reaction and interaction—can be understood by a study of Indian traditions and archaeology.

1. Sankaila, H. D., Cultural signifiance of the personal names in the Early Inscriptions of the Deccan, *BDCRI*, Vol. III, 1941. p. 381.

2. *The Development of Hind Iconography*, 1956, p. 345.

KUNDAMĀLĀ AND UTTARARĀMACARITA

Kundamālā (*Kdm* or *KM*), a drama attributed to Dinnāga and dealing with the later life of Rama was discovered in a fragmentary condition in Malabar and first edited in 1923.[1] Soon after, in 1929, I had an occasion to carry out a detailed comparison of *Kdm* with *Uttararāmacharita* (*Urc*) and point out that there was strong evidence to conclude that Bhavabhūti was indebted to Dinnāga for many of the thoughts and expressions and particulary for Act III of the *Urc*, wherein he brings about a psychological reconciliation between Rama and Sita, after the latter was again abandoned in a forest.[2]

This conclusion was strongly resented by a few scholars, particularly by one of my teachers, the late Professor K. M. Shembavnekar. The main argument was that there was no certainty about the identity of Dinnāga (who incidently was different from the famous Buddhist philosopher), and that a dramatist like Bhavabhūti would never borrow from lesser artists. It was on the contrary quite probable that *Kdm* was a poor imitation of *Urc*.

During the last 37 years, doubts about the priority of *Kdm* and *Urc* have been to a great extent, though not completely, removed. Dr K. Dutta,[3] after great pains and a careful collation of a few Mss. has given something like a critical edition of *Kdm*. He has also shown by a very detailed study that *Kdm* was composed sometime between the 4th and 6th centuries A.D.

This was also the view of Mankad, Krishnamachri, Varadachari and others.[4] Woolner, on the other hand, had suggested tentatively 11th century as the lower limit of the bracket, but this is not right, as shown by Dutta.[5]

Dutta's arguments for an earlier dating are as follows :—

1. In the *Kdm* there is persistent use of Sauraseni Prakrit, both in prose and verse.[6]

2. Certain mannerisms in the language, particularly the prakrit.[7]

1. Ramakrishna Kavi and S. K. Ramanatha Sastri (Ed.), *Kundamālā*, Dakshina-bhārati Sanskrit Series, No. 2, Madras, 1923.
2. H. D. Sankalia "Kundamālā and Uttararāmacarita" *St. Xavier's College Magazine*, Vol. XXII, 1929-30, pp. 63-76.
3. Kali Kumar Dutta, *Kundamālā of Dinnāga*, Culcutta Sanskrit College Research Series, XXVIII, Calcutta, 1964. I am grateful to my colleague, Dr N. M. Sen for drawing my attention to Professor Dutta's work.
4. *Ibid.*, p. 114.
5. *Ibid.*, p. 54. ; also *ABORI.*, XV, p. 236 and XVI, p. 158.
6. *Ibid.*, p. 142.
7. *Ibid.*, p. 153.

3. The use of introductory verses, different from the *Nāndī*.[1]
4. The employment of *Vidushaka* who normally never appears in Rama dramas. His appearance in *Kdm* is novel and is possibly due the influence of Asvaghosha.[2]
5. The practice of erecting statues for the living and dead persons which seems to have died out after the 4th century.[3]
6. The simplicity of the plot and, of the language, particularly Sanskrit which is on the whole free from long compounds and harsh, jarring, guttural words.

One or two objections against a very early date need to be mentioned. The first is Rama is regarded as an *avatāra* of Vishnu. Secondly, there is an invocation to god Heramba (Ganesa).

Both these features seem to have been known and even become current by the 5th-6th century A.D.

Recently, I noticed among the ruins of several temples of the early Gupta period at Tigowa (about 40 km north-west of Jabalpur), two or three idols of Ganesa, which are indeed precanonical, that is before the 6th-7th century A.D. But these do indicate the growing importance of Ganesa.

Thus a more critical study of *Kdm* has very much weakened the objections against its priority over *Urc*. This has emboldened me to republish my artical after so many years, for I find that even Professor Dutta has *not* carried out the kind of detailed comparison between *Kdm* and *Urc*, as I had done.

With regard to the authorship of *Kdm*. Dutta, after discussing several views, concludes the author was Dinnāga and this Dinnāga is the same person who is mentioned in the *Subhāshitāvali* of Vallabhadeva.[4] Any further indentification of this Dinnāga is not yet possible.[5]

Dutta also considers the question of the sources of *Kdm* and *Urc*. Though both these dramas end happily as in the Uttarakāṇda of Valmiki's *Rāmāyaṇa*, the sources of their information do not seem to be identical.[6] Both these might have been borrowed from *Padampurana*.[7] The author of *Kdm* was aware of the fact that in the original story, Sita was left in Vālmīki's hermitage, and the story ended on a tragic note.

However, in a few important particular *Kdm* departs from the epic, as well as the *Urc*. For instance, the episode of the armed conflict between Rama and Lava and Kusa is used by *Urc* after the epic, but is unknown to *Kdm*, a fact which may suggest that Dinnāga was posterior to Bhāsa.[8]

1. *Ibid*, p. 87.
2. *Ibid.*, p. 121.
3. *Ibid.*, p. 113.
4. *Ibid.*, p. 42.
5. *Ibid.*, p. 154.
6. *I bid* p. 165.
7. *Ibid.*, p. 164. Though we must point out here that this *Padmapurāṇa* might not be very old as to be the source of *Kdm*.
8. *Ibid.*, pp. 110 and 115.

Again, though according to both the dramas, Rama meets the twins in Vālmīki's hermitage, they do not agree on the location of the hermitage. *Kdm* places this hermitage in the Naimisa forest on the river Gomati, while *Urc* places it on the river Ganga.[1]

The most important common point between *Kdm* and *Urc* is the *Chāyā* (invisible) Sita incident. As pointed out by me years ago this incident was borrowed by Bhavabhūti and so cleverly used that it places the entire drama on a high psychological plane.

And I am glad to find that Professor Dutta agrees with my view. He further thinks that Dinnāga might have got the inspiration for this invisible Sita incident from the *Pratimā Nātaka* of Bhāsa.[2] Here occur the words—*Chayeva na drišyate Sita.*

Thus though there were enough grounds for inferring that Bhavabhūti derived the inspiration for *Urc* from *Kdm* no attempt seems to have been made to discuss these parallelisms. In the absence of such an effort, no specific reasons could be assigned for these assumptions.

Kundamālā deals with the later life of Rama after he had returned with Sita from Lanka. Ever since their return doubts were expressed about Sita's chastity. Rama could not withstand this doubting attitude of the public, and he charged Lakshmana to take Sita to a forest on the banks of the river Bhāgirathi and leave her there. Devoted Lakshmana does as directed, and returns to Ayodhya after abandoning Sita in a forest. Sita, in her forlorn state, is seen by the sage Valmiki, who takes her to his hermitage. Sita was pregnant at that time, and while going with the sage she takes a vow that she will offer a garland of flowers to the river Bhāgirathī, if she has a safe delivery.[3]

भगवति भागीरथि यद्यहं सुखेन[4] गर्भममिनिर्वर्तयामि तदा ।
तव दिने दिने सुष्ठु ग्रथितया[5] कुन्दमालयोपहारं करोमि ।।[6]

In Vālmīki's hermitage she gives birth to twin sons, Lava and Kusa. Accidental cricumstances bring Rama near Valmiki's hermitage. Thus it happens that the twin recite the Rāmāyana composed by Valmiki before Rama, Lakshmana and others. Finally Rama takes back his wife and sons and there is joy everywhere.

Before entering upon a detailed comparison between the dramas it may be pointed out that there are certain thoughts and expressions which show either mutual exchange between Kalidasa and the author of *Kdm* or that both these had borrowed from a common source current in the 4th-5th contury A.D.

एतस्मिन्विततास्वरे प्रतिदिनं सान्निध्ययोगाद्धरे ।
स्त्यक्तवा नन्दनचन्दनावनिरुहालालानतां प्रापिताः ।।[7]
भोगिवेष्टनमार्गेषु चन्दनानां समर्पितम् ।
नास्रसत्करिणां ग्रैवं त्रिपदीच्छेदिनामपि ।।[8]

1. *Ibid.*, p. 165.
2. *Ibid.*, p. 114.
3. Ramakrishna Kavi and Sri Ramanatha Sastri, *op. cit.*, Act. I, p. 16.
4. The Cr. Ed., p. 21 has *Svastinā* for *sukhena.*
5. *Ibid.*, has *Svahastagrathitayā.*
6. *Ibid.*, has *Karišhyāmi.*
7. *Kdm.*, Act IV, Verse 7, p. 41; Cr. Ed., p. 55.
8. *Rāghuvamsma*, Canto IV, verse 48.

It is only the idea in these two verses, viz., that the sandal trees became the tying- post for elephants needs emphasis.

In *Raghuvamsa* when Lakshmana takes leave of Sita after abandoning her in a forest, because of Rama's order, she says :

वाच्यस्त्वया मद्वचनात्स राजा (14.61)

In *Kdm* in an identical scene, Sita says :

एवमपि तं जनं विज्ञापय (Dutta, I, p. 12)

Thus Sita no longer—and natuarlly—recognized Rama as her husband, for he behaved as a king towards her. Paying back in the same coin Rama is called a "King" by Kālidāsa and a "third person" by Dinnāga.

Kusa in *Kdm*[1] says :

प्रणाममपि सैवोपदिष्टवती, न च गुरुनियोगा विचारमर्हन्ति ।

While *Raghuvamsa*[2] has the following :

स शुश्रुवान्मातरि भार्गवेण पितुर्नियोगात्प्रहृतं द्विषद्वत् ।
प्रत्यग्रहीदग्रजशासनं तदाज्ञा गुरूणां ह्याविचारणीया ॥

These parallelisms of ideas and language point to two things, viz., (1) either Dinnāga borrowed from Kalidasa or the former, or both from a third source; (2) if Dinnāga borrowed from Kalidasa he used his phrases intentionally to satirize Kalidasa; the converse is also possible.

Both the external as well as internal evidence go to show that Dinnāga was a contemporary of Kalidasa, or his immediate successor. Latest research confirms the earlier view that Kalidasa probably lived in the later part of the fourth century A. D.[3] as Bhavabhūti's date has been fixed in the latter part of the seventh century A.D. The priority of Dinnāga thus appears certain.

Apart from the Prakrit which Dutta has shown to be of an early type a glance at the plays shown that the style in which *Kdm* is written is very simple. Very few long compounds and words with harsh sounding gutterals are found. Bhavabhūti, who lived immediatly after the great prose-writer Bana, surcharges his dramas with long compounds and harsh-sounding words. This fact again goes to prove the posteriority of Bhavabhūti.

In the *Maghadūta* Kalidasa makes a reference to a certain Dinnāga: दिङ् नागानां पथि प्रहरन् स्थूलहस्तावलेपान् ।
(V. 12) which, if translated literally, runs as follows:—"Avoiding in your journey the blows of the huge trunks of the quarter elephants.

But Mallinātha's remarks are significant. Grasping the underlying irony of the passage he remarks दिङ् नागाचार्यस्य कालिदास प्रसिपक्षस्य (स्थूल) हस्तावलेपान् (दूष्णानि) परिहरन् ।

1. *Kdm.*, Act V, p. 59; Cr. Ed., p. 77,
2. *Raghuvamsa*, Canto 14, verse 46.
3. Kieth, A.B., *History of Sanskrit Literature*, p. 82, and R.C. Majumdar, (Ed.) *The Classical Age*, 1962, p. 320.

that is Dingnāga was a contemporary of Kalidasa and abused him in his writtings. The same conclusion is arrived at by another commentator Dakshinavartanātha.[1]

दिङ्नागानाम्—अनेन दिङ्नागाचार्यो विवक्षितः। स्थूलहस्तावलेपान्—अनेन प्रबन्धदूषणसमये स्थूलहस्ताभिनयाश्च विवक्षिताः अयमभिप्रायः—दिङ्नाग इति कोऽप्याचार्यः कालिदासप्रबन्धानन्यत्रोक्तोऽयमर्थ इति स्थूलहस्ताभिनयं दूषयति।

This external evidence goes to prove that Dinnāga was contemporary of Kalidasa.

One of the two parallel ideas, couched in more or less identical language prove the internal evidence for inferring, though not quite conclusively, because both Kalidasa and Dinnāga might have borrowed from some third earlier source, that Kalidasa and Dinnāga were contemporaries.

Kaṇva[2] in *Kdm* says:—

आनाकमेकधनुषा भुवनं विजित्य
पुण्यैर्दिवः क्रतुशतैर्विरचय्य मार्गम्।
इक्ष्वाकवः सुतनिवेशितराज्यभारा
निःश्रेयसाय वनमेतदुपाश्रयन्ते॥

Compare this with the following verse from *Raghuvamsa*:—[3]

इति क्षितीशो नवतिं नवाधिकां महाक्रतूनां महनीयशासनः।
समारुरुक्षुर्दिवमायुषः क्षये ततान सोपानपरम्परामिव॥

Let us now turn to the sources of *Kdm* and its main incidents and the changes made by Bhavabhūti to evolve *Urc* out of *Kdm*.

The main theme of *Kdm* is taken from the Uttarakhaṇḍa of Valmiki's *Rāmāyaṇa*, a chapter dealing with the history of Rama from his coronation to his death.

(1) In Vālmīki's *Rāmāyaṇa* Rama charges Lakshmana to take Sita to a forest on the other side of the Ganga and to leave her there.

In Act I of *Kdm* a similar account is found.

(2) Sita was in an advanced state of pregnancy.

In *Kdm* Sita, soon after her arrival in the hermitage of Valmiki gives birth to twin sons, that is, she was in an advanced state of pregnancy when she arrived.

(3) Sita, in her forlorn state, chances upon the sage Valmiki, who receives the exiled queen under his protection. There she gives birth to the tiwn sons Kusa and Lava whom Valmiki educates.

All these incidents occur in *Kdm*.

1. Rāmakrishna Kavi and Ramanatha Sastri, *op. cit.*, Introduction, p. 4.
2. *Ibid.*, IV, verse 5, p. 40; also Dutta, *op. cit.*, p. 55.
3. *Raghuvamsa*, Canto III, verse 69.

(4) Rama performs the Asvamedha sacrifice. Valmiki, along with Lava and Kusa, is present. The boys recite the Rāmāyaṇa in the presence of Rama who, on knowing that Sita is alive, sends for her.

Dinnāga has not made any material change here, except that Rama does not send for Sita, but she happens to go to the assmebly held in the Naimisa forest where Lava and Kusa sing the Rāmāyaṇa before Rama. Valmiki asks Rama to take back Sita while Sita on the solemn testimony of Valmiki declares her purity and innocence and exclaims: "Let Prithivi rise up to ascertion my purity".

The vow to offer a garland of *kunda* flowers to Bhāgirathī seems to be an invention on the part of Dinnāga.

In Acts III, IV, and V, Rama revisits the old familiar scenes after the great event of Sitā's abandonment. Both Valmīkī's *Rāmayṇa* and the *Padmapurṇa* tell us that Rama visited these places after killing the Sūdra ascetic.

Dinnāga, however, brings Rama into these places without any obvious reason. He intersperses these Acts with some splendid descriptive and reflective passages. He brings Rama and Sita together in these Acts though, Rama is not aware of Sita's presence, as he could not see her because of Valmiki's ban that no man would be able to see any woman living near the *Dīrghikā* (an oblong tank). Here it is that Sita comes to know that Rama still loved her from his heart, though the reconciliation was achieved by that one line:—

यागे तव प्रतिकृतिर्मम धर्मपत्नी[1] and Sītā says :—एवं संदिशतार्यपुत्रेण परित्यागदुःखं मयि निरवशेमपनीतम् ।[2]

These remarks, though pregnant with great consequences, are put forward unartistically by Dinnāga.

Let us see how Bhavabhūti uses this scene to his advantage. Bhavabhūti does not open his first Act with Lakshmana and Sita in a forest. He rather opens it with Rama and Sita, who are looking at the picture gallery wherein are depicted their past deeds. He shows how deeply Rama and Sita loved each other and yet, Rama was prepared to cast her off, a State duty demanding the sacrifice. Finally, he gives us the events accompanying the exile of Sita.

Morover, Bhavabhūti gives the reason for Rāma's going to Daṇḍakāraṇya, etc. He utilizes the Sudraka event given in Valmiki's *Rāmāyaṇa* for bringing Rama to the forest. He further notices Dinnāga's invention, namely, the scenes in which Rama and Sita are close to one another, yet Rama is unaware of Sita presence; and he too brings Rama and Sita in close proximity. But Sita remains invisible through Bhāgirathī's power. Still, a consummate artist like Bhavabhūti could not rest satisfied with this scene alone. He brings about most artistically a reconciliation between Rama and Sita; a "psychological study", as Dr Belvalkar[3] puts it.

1. Ramakrishna Kavi and Ramanatha Sastri, *op. cit.*, Act I, Verse 13, p. 8; Dutta, *op. cit.*, Act 1, Verse I4, p. 10.
2. *Ibid.*
3. Tr. of *Rama's History* by S.K. Belvalkar, *H O S*, Vol. 21. p. 80.

To Dr Belvalkar the scene appeared as an original work of Bhavabhūti. This was natural, as *Kdm* was discovered and published after Dr Belvalkar's edition of the *Urc*.

Let us now turn to the changes effected by Bhavabhūti.

As has been already noticed, the idea of bringing together Rama and Sita, and the idea of making Sita invisible, did not arise in the mind of Bhavabhūti; it is peculiar to Dinnāga who had it first. But Bhavabhūti made the following changes. He kept Sita in the dark as to the cause of her exile which Dinnāga, following Valmiki's *Rāmāyaṇa*, gives in the first act of *Kdm*. Consequently when Sita sees Rama for the first time after her separation from him, she is extremely angry with Rama for his disgraceful conduct. Bhavabhūti, then puts together all the materials which bring about the reconciliation between Rama and Sita, scattered at random in *Kdm*. He, thus, brings about a "psychological change" in the heart of Sita. Instead of piling a mere heap of various incidents he gives them in the order of psychological development. Sita, therefore, "from a feeling of apathy and even resentment towards her husband, after many a swing of the pendulum reaches finally a state of confidence and perfect reconciliation."[1] Bhavabhūti puts the very same words in the mouth of Rama which Dinnāga uses in *Kdm*; Sita's reply also is couched in similar words.

रामः—अस्ति चेदानीमश्वमेधाय सहधर्मचारिणी मे ।

सीता—आर्यपुत्र का ।

रामः—हिरण्मयी सीताप्रतिकृतिः ।

सीता—आर्यपुत्र इदानीमसि त्वम् । अहो उत्खातमिदानीं मे परित्यागलज्जाशल्यमार्यपुत्रेण ।[2]

Compare the above lines from *Urc* with those from *Kdm* quoted above.

Having thus shown that Bhavabhūti has drawn the matter for his third Act of *Urc* from *Kdm*, which he improved to a great extent, though, let me turn to some details for which Bhavabhūti was indebted to Dinnāga's *Kdm*.

In *Kdm*, Lakshmana,[3] while leaving Sita, prays to the river Bhāgirathī, to sages, sylvan deities and others to look after Sitā in her exile.

Bhavabhūti makes use of the same device. When Rama and Sita looking at the picture gallery come to the river Bhāgirathī and others Rama[4] prays to them to look after Sita in the same way as Mother Earth looked after her. But Rama says this without the slightest idea that Sita would be exiled and that these—the river Bhāgirathī and other, would be her protectors. Thus Bhavabhūti has created a remarkale instance of dramatic irony of an incident which Dinnāga gives as a matter of course.

1. *Ibid* p., 81.
2. *Uttararāmacarita*, Act. III, after verse 46.
3. Ramakrishna Kavi and Ramanatha Sastri, *op. cit.*, Act I, verses 22-26.
4. *Urc.*, Act I, after verse, 23.

Further, in *Kdm* Lakshmana discloses to Sita the cause of her exile in the following verse:—[1]

ऋषीणां लोकपालानामार्यस्य मम चाग्रतः ।
अग्नौशुद्धिं गता देवी किन्तु लोको निरंङ्कुशः ॥

Bhavabhūti discloses the same very artistically. Rama is in the forest with Vāsanti very sore at heart on account of the separation. Sita also, is there but invisible. Vāsanti, at that time asks Rāma why in spite of his great love for Sitā he abandoned her. And Rama replies—*loko na mrishyatīti.*

Here Sita learns the cause of her exile through Rama himself, and Bhavabhūti has done this in a very natural way which at the same time touch our vitals, showing at the same time the helplessness of Rama.

Dinnāga in the *praveśaka* to Act II of *Kdm* informs us through two *Munikanyakas* that Sita has given birth to twin sons, that they are studying the *Rāmāyaṇa* from Valmiki, and that Rama is going to perform the *Aśvamedha.* The *vishkambhaka* to Act II of *Urc* tells us these same things.

In the third Act of *Kdm* Sita is in the forest and there comes Rama with Lakshmana. Both Sita and Rama are unaware of each other's presence there. Now Sita,[2] hearing the conversation between Rama and Lakshmana, says:—

को नु खलु एष सजलजलधरस्तनितगम्भीरेण स्वरविशेषेणात्यन्तदुःखभाजनमपि मे शरीरं रोमाञ्चयति ।

Similar is the situation in *Urc*, Act III, where Sita[3] says:—

अह्महे जलभरितमेघमंथरस्तनितंत्रभीरसांसलः कुतो नु एष मां झटिति उत्सुकयति ।

Striking indeed is the similarity of language, ideas and situation.

Sita's mental condition is depicted in *Kdm*;[4] when she sees Rama after her separation, in the following words:—

अंहो दृष्ट इति परितोषः चिरप्रवास इति मन्युः परिक्षाम इति उद्वेगः निरनुकोश इति अभिमानः ।

Now compare the above sentiments with she following from *Urc* of Tamasā[5] when Sita sees Rama after her abandonment in the forest:—

तटस्थं नैराश्यादपि च कलुषं विप्रियवशा-
द्वियोगे दीर्घेऽस्मिञ्झटिति घटनात्स्तंभितमिव ।
प्रसन्नं सौजन्याद्दयितकरुणैर्गाढकरुणं
द्रवीभूतं प्रेम्णा तव हृदयमास्मिन्क्षण इव ॥

Save some variations in expressions and phrases, in both the thought is identical.

1. Ramakrishna Kavi and Ramanatha Sastri, *op. cit.*, Act I, Verse 13.
2. *Ibid.*, Act III. p. 30.
3. *Urc*, Act III, after verse 6,
4. Ramakrishna Kavi and Ramanatha Sastri, *op. cit.*, Act III, p. 31.
5. *Urc*, Act III, verse 13.

Again, I think, Bhavabhūti owes the following verse and the idea contained in it to Dinnāga. Here is the verse from *Urc*:—[1]

किमपि किमपि मन्दं मंदमासक्तियोगा-
दविरलितकपोलं जल्पतोरक्रमेण ।
अशिथिलपरिरम्भव्यापृतैकैकदोष्णो-
रविदितगतयामा रात्रिरेव व्यरंसीत् ॥

The verse from *Kadm* runs thus:—[2]

किसलयसुकुमारं पाणिमालम्ब्य देव्या विविधरतिसखीभिः संकथाभिर्दिनान्ते ।
चरणगमनवेगान्मंथरस्य स्मरामि स्रुतपयसि तटिन्याः सैकते चङ्क्रमस्य ॥

In *Kdm* Lakshmana says that the deer, swans and peacocks are all weaping, distressed and without any joy, because they sympathize with the piteous condition of Sita, and sums up thus:—

तिर्यग्गता वरमनी न परं मनुष्याः ।[3]

Rama, in *Urc* says that all forest animals and birds whom Sita fed and with whom she passed her time, they all, now that Sita has once more been in their midst, seems to imitate her, and says:—

हन्त तिर्यञ्चोऽपि परिचयमनुरुध्यन्ते ।[4]

Both the passages allude to the sympathetic attitude of animals and birds towards Sita in her exile, at the same time hinting at the hard-heartedness of Rama.

In both *Urc* and *Kdm* Sita is compared to a loving creature that is handed over to a butcher, when she is taken to the forest.

Lakshmana says in *Kdm.*:—[5]

तदहमपि स्वजनविस्रम्भनिर्विशङ्कां देवीमादाय गृहहरिणीमिव वध्यभूमिं वनमुपननयामि ।

Analogous to this feeling is the following expressed by Rāma[6] after he resolves to abandon Sita:—

शैशवात्प्रभृति पोषितां प्रियां सौहृदादपृथगाश्रयामिमाम् ।
छद्मना परिदामि मृत्यवे सैनिको गृहशकुन्तिकामिव ॥

Bhavabhūti has rendered the feeling more intense and heart-rending, specially because he has selected the verse form to convey his thoughts.

In Act IV of *Kdm* Rama, who is overcome with the feeling of separation, faints in the forest. Sita who is near by, and who knows of his presence there, at once goes

1. *Ibid.*, Act I, verse 27.
2. Ramakrishna Kavi and Ramanatha Sastri, *op. cit.*, Act III, verse 12.
3. *Ibid.*, Act I, verse 17.
4. *Urc*, Act III, after verse 20.
5. Ramakrishna Kavi and Ramanatha Sastri, *op. cit.*, Act I, p. 3.
6. *Ibid* Act I, verse 45.

to Rama and revives him. After his revival she returns, and Rama utters the under-mentioned verse: –

देहि मे दर्शनं प्रिये । त्यज्यतां दीर्घरोषोऽयं किं नु निष्करुणा मयि ।[1]

and Sita,[1] hearing this replies:—

आर्यपुत्र, विपरीतः खलु उपालम्भः ।[2]

A similar situation arises in *Urc* where Rama[3] says:—

कथं नास्त्येव ननु अकरुणणे वैदेहि ।
क्वासि देवि प्रसीद । न मोमेवंविधं परित्यक्तुमर्हसि ।

and Sita replies —अयि आर्यपुत्र, विप्रतीपमिवैतत् ।

Is it too much to say that Bhavabhūti was strongly influenced by Dinnāga's *Kdm* and transplanted the scene into *Urc* ?

The following two verses deserve attention. Here is one from *Kdm* uttered by Rama[4] on seeing Lava and Kusa and describing his (Rama's) inner feelings:—

आपातमात्रेण कयापि युक्तया संबन्धिनः तंनमयन्ति चेतः ।
विमृश्य किं दोषगुणानभिज्ञश्चंद्रोदये श्च्योतंति चंद्रकान्तः ।

And now read the other one from *Urc*:—

व्यतिषजति पदार्थानान्तरः कोऽपि हेतुर्न खलु बहिरूपाधीन्प्रीतया संश्रयन्ते ।
विकसित हि पतंगस्योदये पुण्डरीकं द्रवति च हिमरश्माबुद्धते चन्द्रकान्तः ॥

uttered by Rama[5] on seeing Lava.

I do not lay so much stress upon the similes which are, without any difference, the same in both the verses, which Bhavabhūti, however, cannot without any strong proof, be charged with having taken from *Kdm*, for they (the similes) belong to the conventional stock from which Sanskrit poets take; the emphasis is on the idea that underlies these verses.

Let us see what Bhavabhūti has done here.

He was, evidently, dissatisfied that such a lofty thought should be conveyed in words, which are so feeble and inadequate. He, therefore, recast the verse. and instead of *Kayā pi yuktyā* he put *āntaraḥ ko pi hetuḥ* and for *sambandhinaḥ sannamayanti chetaḥ* he put a generalised statement conveying the sense more clearly.

Polished and refined as the verse of Bhavabhūti is, such words as *padārthān* and *upādhīn* lend it a philosophic tone.

1. *Ibid.*, Act IV, verse 15.
2. *Ibid.*, Act IV, p. 45. Dutta, *op. cit.*, p. 78.
3. *Urc.*, Act III, just before verse 43.
4. Ramakrishna Kavi and Ramanatha Sastri, *op. cit.*. Act V, verse 10.
5. *Urc*, Act VI, verse 12.

Simplicity and severity are the characteristics of Dinnāga's verse.

Moreover, the very means which Dinnāga adopts to show that Rama was above all hatred and malice are resorted to by Bhavabhūti.

In *Kdm*, Act VI, Kusa and Lava sing the *Rāmāyaṇa* composed by Valmiki before Rama. They are about to recite the part which Kaikeyī played in sending Rama to a forest when Rama immediately stops them and asks them to omit that verse.

Act I of *Urc* delineates the character of Rama. Rama, Lakshamana and Sita are looking at the picture gallery. At the time when Lakshmana draws their attention to Kaikeyī's deed, Rama turns to some other scene, showing thereby that he did not wish to disagrace Kaikeyī once more for her past action.

Finally, we notice that in *Kdm* Valmiki[1] rebukes Rama for not taking into consideration various authorities for Sita's chastity:—

वाल्मीकिः (सकोपम्) — हे राजन्, धृतसौहार्द, महाकुलीन, समीक्ष्यकारिन्,. किं युक्तं तव प्रतिपादितां जनकेन, गृहीतां दशरथेन, कृतमंगला मरुन्धत्या विश्रुद्धचारित्रां वाल्मीकिना, भावितशुद्धि विभावसुना, मातरं कुशलवयोः, दुहितरं भगवत्या विश्वंभरायाः देवीं सीतां जनापवाद-मात्रश्रवणेन निराकर्तुम् ?

Compare the above rebuke with that of Prithivī[2]:—

पृथिवी—भगवति भागीरथि युक्तमेतत्सर्वं न वो रामभद्रस्य ।

न प्रमाणीकृतः पाणिर्बाल्ये बालेन पीडितः ।

नाहं न जनको नाग्निर्नानुवृत्तिर्न संततिः ।।

I have tried to show that Bhavabhūti drew for much of his material in *Urc* upon *Kdm* of Dinnāga by adducing (1) parallel situations and scene, (2) identical thoughts, and (3) some characterstic phrases.

Notwithstanding the fact that Bhavabhūti utilised much of the meterial in Dinnāga's *Kdm* for his own play, it must be said to his credit that it reveals the hand of one of the greatest artists. Bhavabhūti liked the scene which Dinnāga undertook to paint, but disliked the way in which it was worked out. He felt the want of a much deeper background, more colour and more shade, and that he set to create in *Urc* This also accounts for the fact that the title '*Kdm*' was changed. '*Kdm*' like '*Pride and Prejudice*' does not enable one to know straight off what the contents are, while the tittle *Urc* does this very well. Moreover, whereas the title '*Kdm*' is given after a particular incident,'*Urc*' is very broad and general, covering the whole topic.

Thus Bhavabhūti recast *Kdm* of Dinnāga altering and modifying what he thought fit to change. He worked with the clear sense of what was artistic and he, therfore, by

1. Ramakrishna Kavi and Ramanatha Sastri, *op. cit.*, Act VI, p. 75.
2. *Urc*, Act VII, verse 5.

changing some of the thoughts and expressions of *Kdm* not only improved but doubled its value by putting it into the shape of *Urc*.

One of the reasons why *Kdm*, though an original work, was lost and forgotten, and *Urc*, a later production and an improvment on the former, is remembered and read, is to be found in this Bhavabhūti's *Urc* is "a great abounding fountain of truth, whose criticism of life is a source of illumination and joy to whole human race for ever."[1] Bhavabhūti's ideal of true love, of true friendship, and his concepation of childhood will ever remain engraven in the hearts of his readers. It is for these reasons that, though he passed with scant notice through his own genaration—of which he complains in his early works—still he was singled out and preserved by the next and thus handed down from one generation to another till the present day.

1. Mathew Arnold in three kinds of fames speaks in these words about Shakespecre and Homer. They are, I think, equally, true of Bhavabhūti

SURVIVAL OR OBSERVANCE OF A PREHISTORIC CUSTOM

Shri J.B. Kripalani has recently said that when we observe a national mourning involving a stoppage of all our activities, we are following an ancient custom and ceremony. How did this custom arise ? And how ancient is it ? This custom is at least three to five thousand years old as far as India is concerned. It can be traced back to a period when Man lived in small, self-sufficient villages and when he buried the dead. For, as far as we know, the custom of cremation came much later. In the Indus or the Harappan civilization, there was a regular cemetery, a few kilometres away from the city, as has been proved conclusively by the excavations at Mohenjodaro, Harappa, Lothal and now Kalibangan in Rajasthan. Prior to this, the dead were buried right in the houses and this custom survived in south India, including Maharashtra until the 7th-8th century B.C. This house was very simple—almost a one-room tenement. A small shallow pit—1.5 to 1.8 m long and 0.60 m wide—was dug and the child or the adult, after exposing the body outside, was put into this pit, or laid straghtway after death into the pit. Such a practice, as the most ancient practice witnessed in the caves of France, Germany, and in Iraq did not need anybody else's help except of members of the family. But when the custom of burying the dead in regular cemeteries, a little away from the habitation started, two things were necessary: a large pit had to be dug and the dead body had to be taken to the pit. This naturally required the assistance of a much larger group of people, family members, relatives and neighbours. In the Indus or the Harappan civilization, the dead were often provided with numerous pots and pans, according to their status in life and this varied from person to person or family to family. And in one recent case in Kalibangan, no less than 64 pots were found in one grave. Again the grave was lined with bricks. So a mason was also required. All these activities in a small village or even a city like Kalibangan would draw away practically the entire population.

This became necessarily so in all the granitic and lateritic regions of south India. including Andhra, Karnataka Tamil Nadu and Kerala. Here about 1000 B.C. began a custom of burying the dead in huge underground or overground stone chambers, called by a variety of names such as cists, dolmens, etc. Further, these underground coffins of stone were capped with huge blocks of stone each weighing some tonnes and further covered with smaller rubble, thus froming barrows and cairns.

Everyone of these burials was truly a stupendous thing requiring, as it did, the co-operation of the digger, several stone-cutters and masons, architects, potters and a large labour-force to move the huge and small stones weighing over a tonne to the required place from the stone quarries and mines. During all these activities, the dead body was exposed and all the flesh allowed to dry up. Later the bones were collected

and inserted through a hole (called port-hole) in the specially constructed underground or overground stone chamber, where along with a few pots and pans, iron tools and weapons and ornaments belonging to the dead had been placed.

The construction of such a magalithic tomb was beyond the capacity of a single family or a community. Co-operation from the entire village was sought and probably given. Naturally a forced holiday became necessary. Hence, somewhere in *Upanishads* there is a saying that this would be a day of no study and complete rest.

The same thing bappened when the custom of cremation was introduced (whether by the Aryans or somebody else, we do not know). The dead body had to be carried normally to a river bank or where water was easily available; then the pyre had to be prepared. This had been vividly described in the *Ramayana* in connection with the cremation of the monkey king Vali. And for this, fuel had to be collected or a tree felled, as it is still the custom where there are no regular fire-wood shops. All this necessitated the help from an entire community. For, this was an incident which sooner or later every family suffered and, therefore, in India as far as writer's knowledge goes, no distinction was made between the for and the friend. When a person died and it was a must for every person to attend the funeral. Even after the body was set in the funeral pyre the kith and kin and the near relatives and friends normally did not leave the *smasana* until the body was reduced to ashes. And this took several hours. Naturally the whole day was spent in the *smasana*; if it was night a better part of the night and, thus, a holiday was quite necessary. Nobody at that time could afford to neglect his duty to the community though now-a-days one, can take a hearse or a municipal van and put the body in an electric crematorium.

Thus, whether it was a megalithic burial or a cremation, the entire population of the village in one way or another participated in the death ceremony, and a holiday became necessary.

When later the village grew into a city and facilities increased, still when a person died, a call went out to all the relations and frinds of the deceased and within a couple of hours they assembled and took the dead body to the burial or cremation ground. Some times, as in Surat, these were miles away. Here again several hours of the day, or a good part of the day or night was spent.

Now when the dead person was an influential person, a VIP or a ruler of a small kingdom, the entire kingdom observed the mourning, though everyone of the population could not participate in the actual burial or cremation ceremony.

What was a normal, natural necessity, suitable to an early agricultural society, became in course of time a national mourning for a particular kingdom only. And this remained for centuries to come, until India got her Independence. With Independence should have come maturity, but politics has become be-all and end-all of parties. The result is that the death of a leader or a minister, however small, is turned into a National or a State mourning just to gain cheap popularity of the factional groups.

A custom appropriate to a barbaric society is now being perpetuated into a National or sub-National institution because of political expendiency.

As a result all schools and colleges, offices and at times all factories are made to close in the honour of or to honour the dead. One wonders how is the dead honoured by such a gesture on our part ? How is a person like Pandit Jawaharlal Nehru or Lal Bahadur Shastri honoured, one fails to know. For Nehru *aram* was *haram*, and as he always said "I have miles to go". A proper way befitting the person's ideal would have been to work on a holiday. Instead, for days together all India was at a standstill, on the plea of self-sacrifice. A little consideration will show that no self-sacrifice is involved. There is no sacrifice on the part of the students, professors, or workers. These are all salaried people or parasites maintained by their parents or their wards; and the labourers get a paid holiday. The real sufferer is the casual wage-earner or a small seller in the street and petty shopkeepers, whereas the cinemas and hotels make a heyday as the students and others flock to these places as a mark of respect to the dead!

In India, while we try to perpetuate these old customs, we should see and learn a lesson from what is being done in foreign countries. When President Kennedy died, we were excavating a site in Langhnaj in Gujarat where a professor from an American University was also present. When we told him that he could close the work if he liked, he expressed surprise why the work should be closed when President Kennedy died ! The same thing I noticed when I was a student in London when the king abdicated or when George VI died. Not everything was closed. A few minutes observance of silence is more expressive than the exuberant, festival-like observance of a mourning.

Two ministers died recently. One died on a Saturday and Sunday intervened. Still the State without the least thought declared a holiday after the schools, colleges, offices and the factories had opened, thus unnecessarily a national waste. With the increase in the number of ministers, with or without portfolios, such state mournings are bound to increase. Add to these national mournings, strikes for no reason whatsoever, one can imagine the condition of Indian economy !

DISPLAYING EXCAVATIONS IN A MUSEUM

It is difficult to explain to common man, however much educated, the method of calculating the antiquity of an object. This is particularly true of objects excavated from an ancient mound. So a visual representation of the mound, and a section cut through it, showing the various layers and the typical associated objects was attempted in the Archaeological Museum of the Deccan College at Pune.

For such a representation, Nevasa (Dist. Ahmednagar) was selected. Here the Ladmod mound situated on the Pravara river gives almost a complete sequence of cultures with two breaks, right from the Early Stone Age upto the Bahmani Period (15th century).

From the water-level the mound is nearly 21m high. The top 9m have been formed by the debris of human occupation, right from the Chalcolithic Period; whereas the remaining 12m, from the black soil downwards upto the water-level have been formed by the three gravel-layers, yellow silt and the black soil. The lower two gravel-layers contain stone tools of Stone Age I and II respectively. The yellow silt-layer is thoroughly barren.

The Chalcolithic people using (i) painted pottery with spouts, concave-sided bowls, (ii) copper and polished stone-axes, and (iii) microliths of chalcedony and burying the dead in earthen pots, right under the habitation floors, had settled on top of the black soil.

Then there was another break in the sequence. This is suggested by a dark brown layer over the Chalcolithic habitation.

After this came an iron-using people who knew coins, lived in tile-roofed houses, having fine,white, lime-surfaced floors, had brick and terracotta ring soak-pits (the bottom of which was taken right into the virgin soil), used black-and-red pottery vessels and footed saddle querns (*pata-varvanta*) and worshipped Mother-Goddess, made as if seated in European fashion.

During the later half of this period, owing to increasing trade with the Roman World, huge wine jars with pointed bottom and two side-handles near the mouth, and dishes of copper or bronze with a projection in the centre were imported. There were other characteristc vessels as well of fine red-polished pottery. These were often locally imitated. People lived in brick houses; but these were often built right on the debris, without proper foundation. The latest inhabitants on the mound had among other

objects polychrome glass bangles and glazed tiles, and they made huge ash-pits in the earlier occupation deposits.

So these characteristic features of the six cultural periods called Bahmani, Indo-Roman, Satavahana, Chalcolithic, Stone Age II and Stone Age I and of the soil-layers had to be shown. Fortunately, the walls of our Gothic-styled buildings are comparatively very high, nearly 7.5m. Leaving out the top, a highly angular part extending over 2.1m, 5.4m of the wall was available for the display of the mound and the section through it. That means that the 21m mound was to be reduced to 1/4th of the original. But our section, which was drawn to scale in the field, and the various objects could not be proportionately reduced. For instance, the lime-floor, originally one inch thick, could hardly be seen, if reduced. So also the Mother Goddess and the glass bangle and microliths, while the amphora, though over 1.2m in height if reduced to 1/4, would not look like it. Thus after some experiment we had to adopt varying scales. The typical Satavahana pottery, and the painted pottery bowl, spouted pot and the narrow-necked water vessel (*ghara*) of the Chalcolithic Period have been shown in the original size; so also the urnburial of a child, whereas the goddess has been enlarged, the amphora fully re-constructed, and lime-floor slightly exaggerated. The various natural layers—black soil, yellow slit and the gravels have been reduced to approximately one-third of the original, but-axes, the cleaver of Stone Age I and tools of Stone Age II retain their orignal size. For if reduced, they would not convey to the onlooker their true significance (Pls. 68 and 69).

How was all this done ? I thought we could use the samples from the original soil layers, and stick them on to a clay-and-wood backgound, But the clay on drying up would crack into pieces. So our artist, Dalvi of the Prabhat Studio, suggested that he would prepare the background of plaster of paris, and spray it with the appropriate colours of the layers. This succeeded fairly well, except for the black soil. This appears a little too black in our model, whereas the original is dark-brown-black. The various gravel layers were made by sticking the actual gravel on the plaster while it was wet.

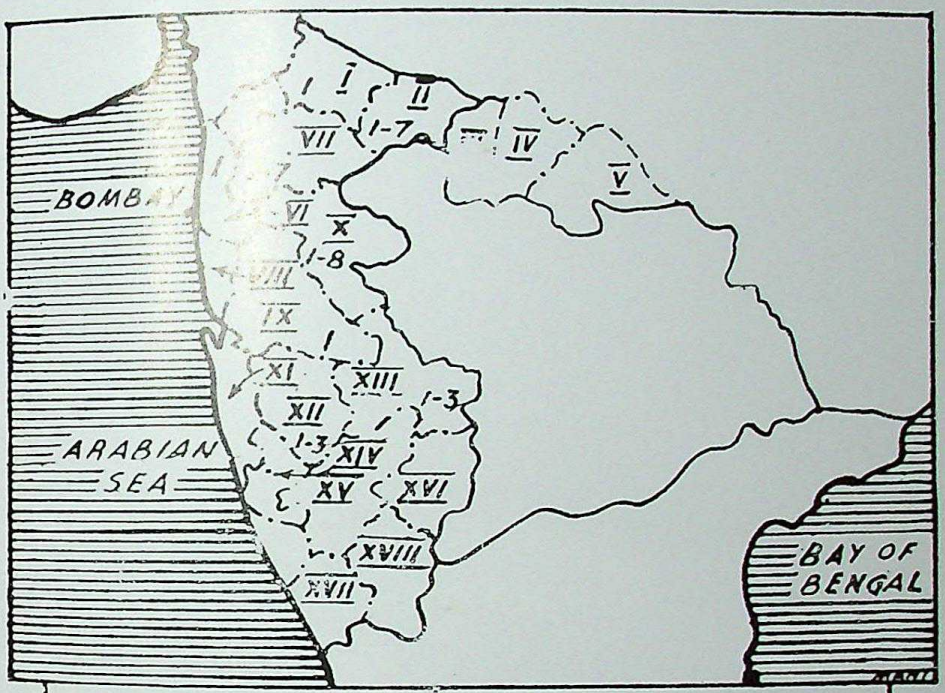
Most of the objects were made by Shri Dalvi and his assistants on the spot from our drawings and originals, by preparing casts or reconstructions. How these artists produce pots, dishes and skeletons from almost nothing, is indeed a (cinema) studio artists' secret. In fact it would not be an exaggeration to say that it is Shri Dalvi's artistry which has enbabled us to prepare this section of Nevasa excavation.

After this was prepared, Shri Dalvi was asked to prepare another portable section for the UNESCO Exhibition at New Delhi. This is nearly 2.4m in height and made in three pieces. All the objects as well as the layers are made to scale. The only difference is that in this section instead of a brick soakpit, we have shown a ring soak-pit. Secondly, the Indo-Roman house has been shown with a pebble and black soil foun-

dation. The former, was made in wood, while in preparing the layers the samples from the originals soil collection have been used. This model thus looks more natural. It is now exhibited in the National Museum at New Delhi (Pl. 69).

In the preparation of these models our entire staff, Dr. S. B. Deo, Shri Zainuddin Ansari, Shri S. K. Kulkarni and G. J. Joglekar participated, while Shri J. P. Joglekar to whom I first spoke of my scheme, contacted various artists and ultimately selected Shri Dalvi. Shri Joglekar's advice was also of help while the models were being made. For museums intending to display such excavated sections it may be mentioned that it cost us Rs. 1,000 and Rs. 250 respectively for the two models.

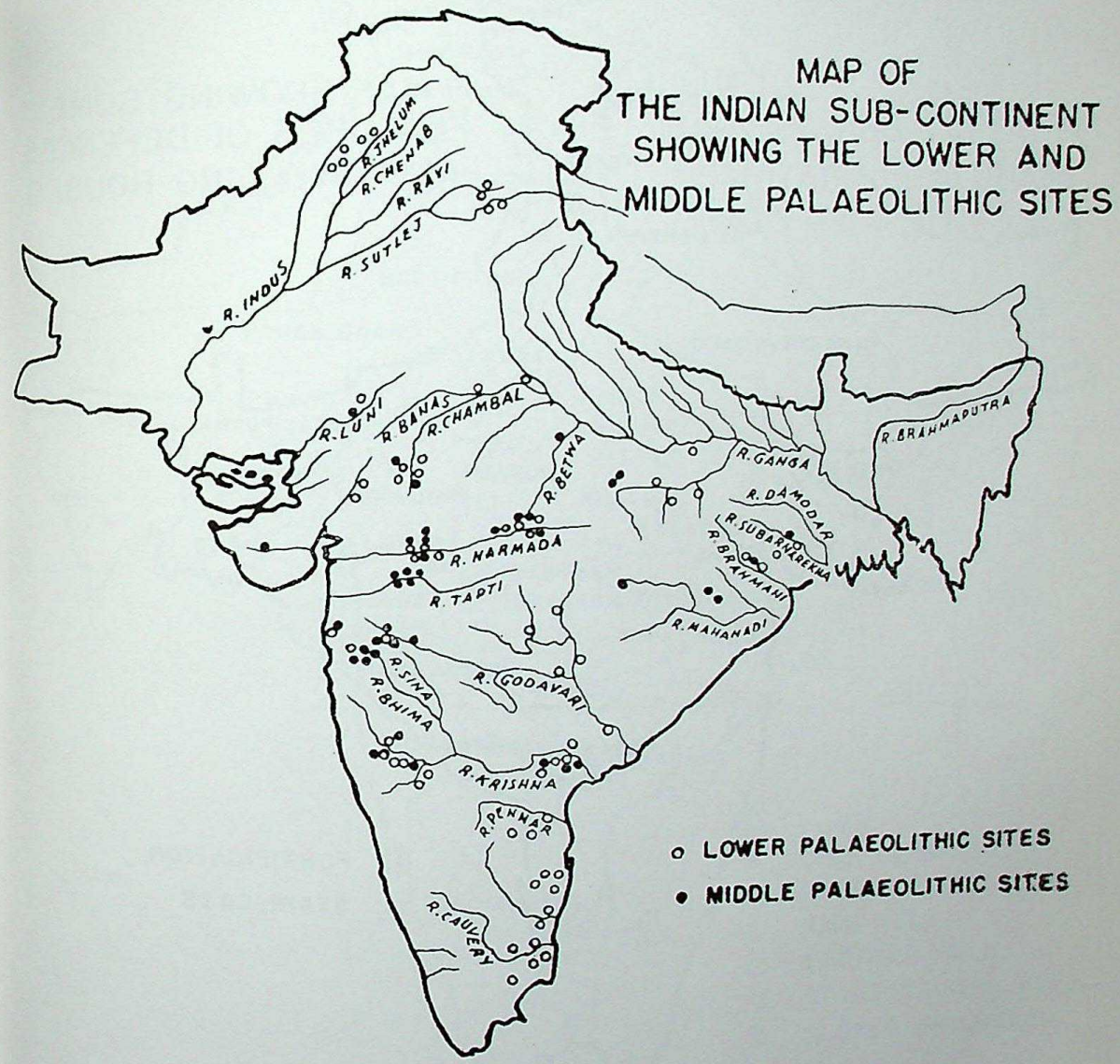
TEMPLES OF THE MEDIEVAL PERIOD IN THE DECCAN



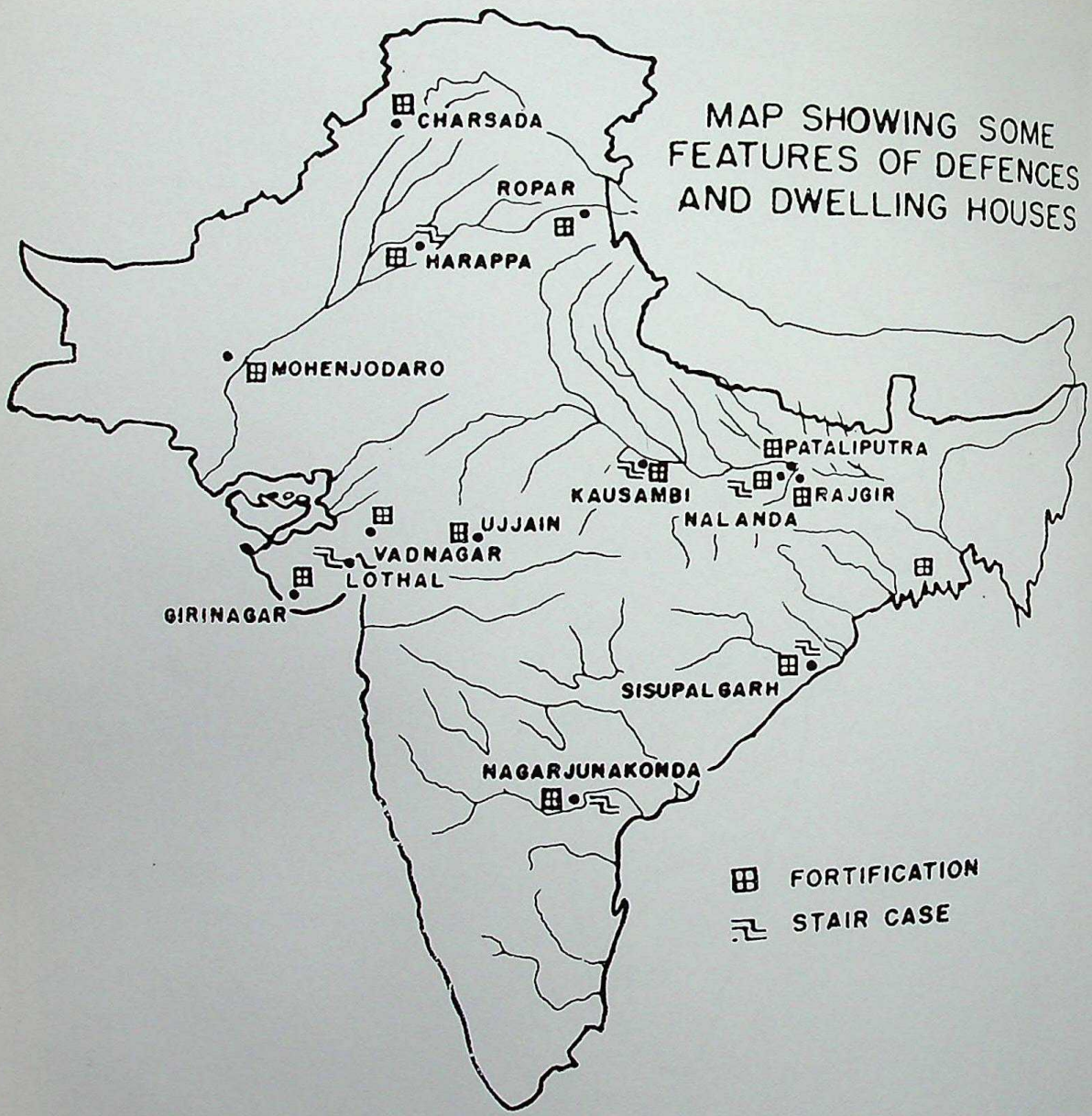
I W. KHANDESH	X AHMADNAGAR
II E. KHANDESH	XI RATNAGIRI
III BULDHANA	XII SATARA
IV AKOLA	XIII SHOLAPUR
V YEOTMAL	XIV KOLHAPUR
VI THANA	XV BELGAUM
VII NASIK	XVI BURDUR
VIII KOLABA	XVII NORTH KANARA
IX POONA	XVIII DHARWAR

Map 1

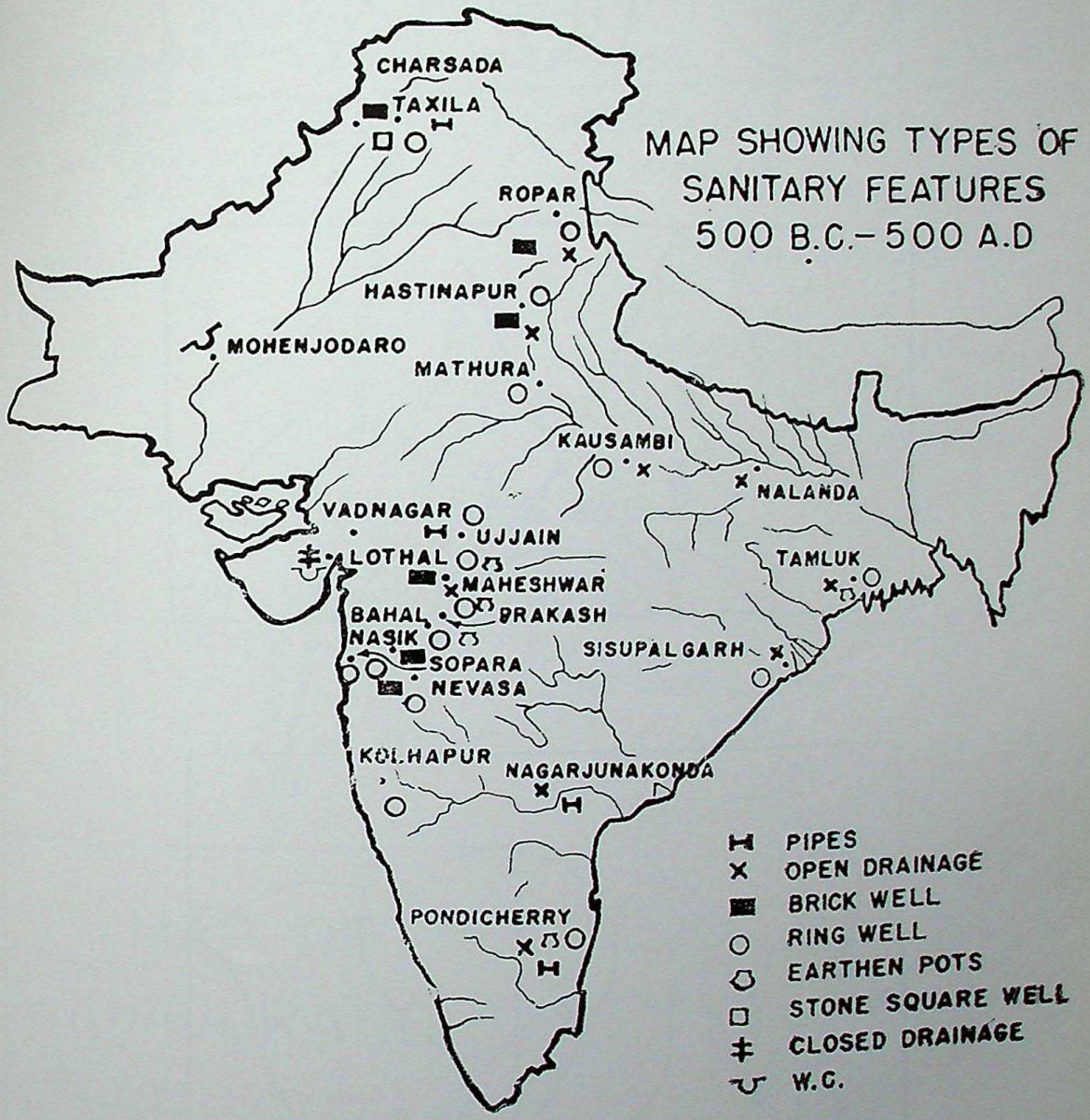
Map 2



Map 3



Map 4



Map 5

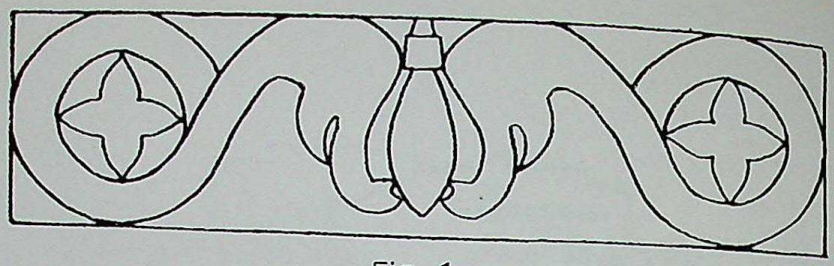


Fig. 1

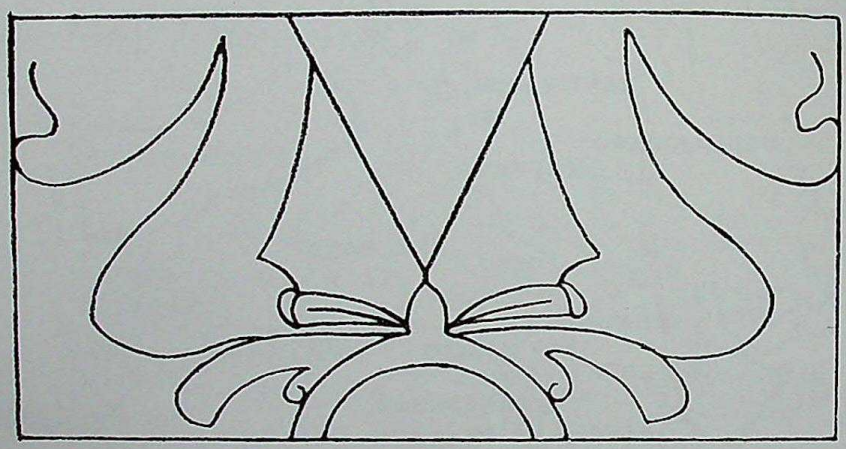


Fig. 2

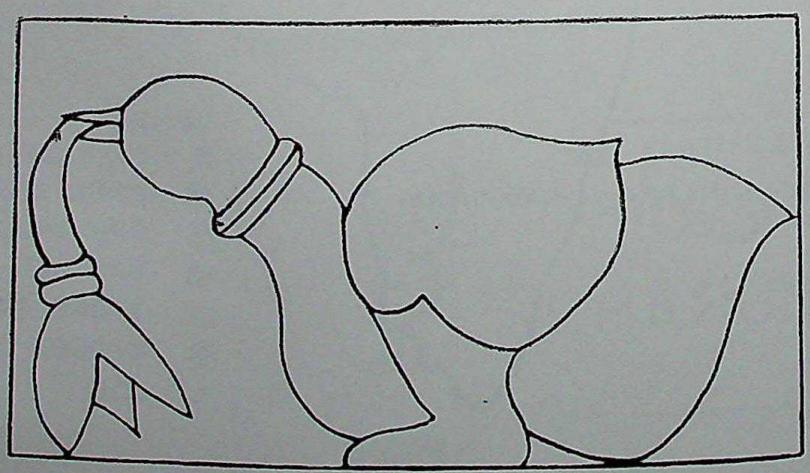


Fig. 3

Conventional swan motifs on temple walls, Pur.

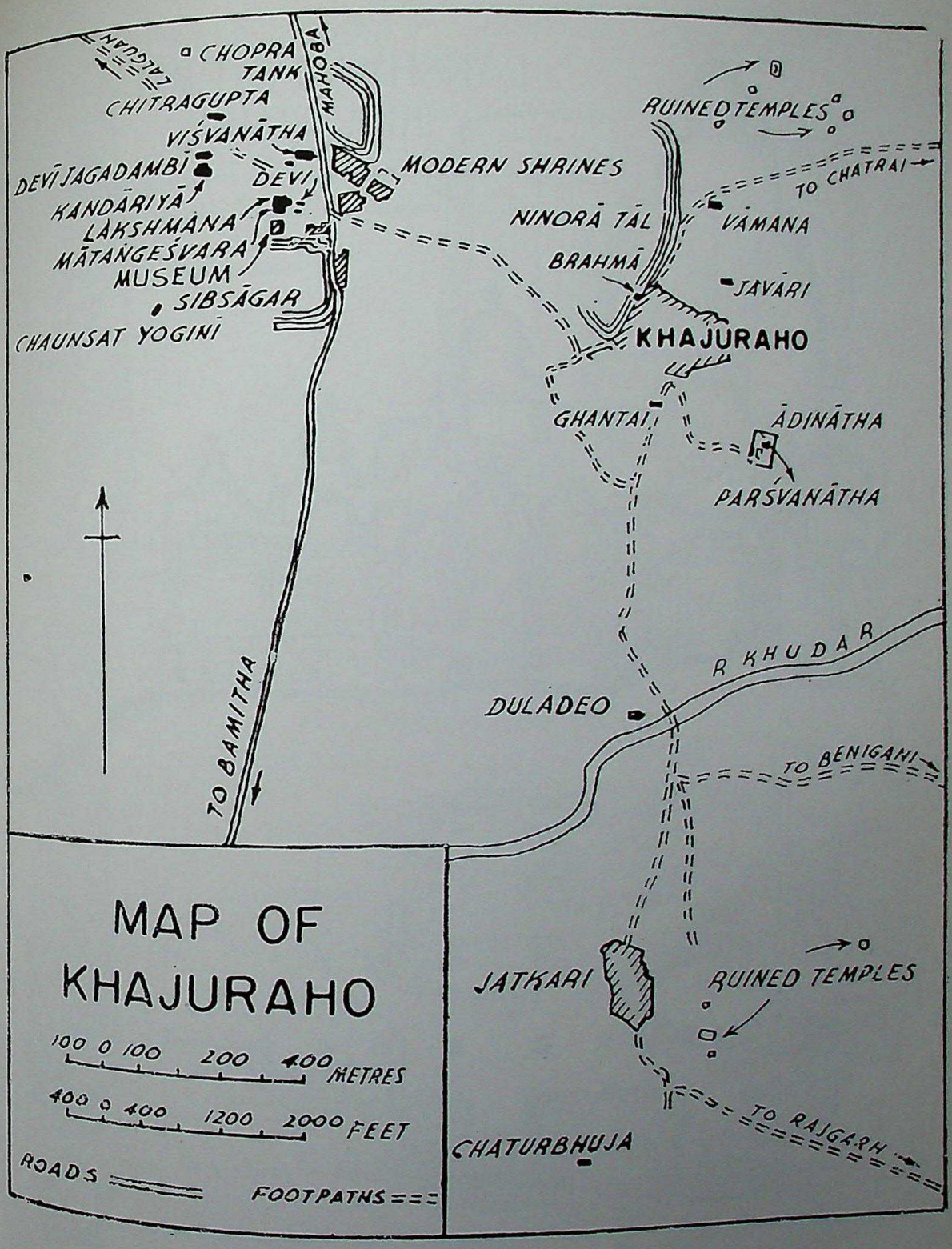


Fig.4

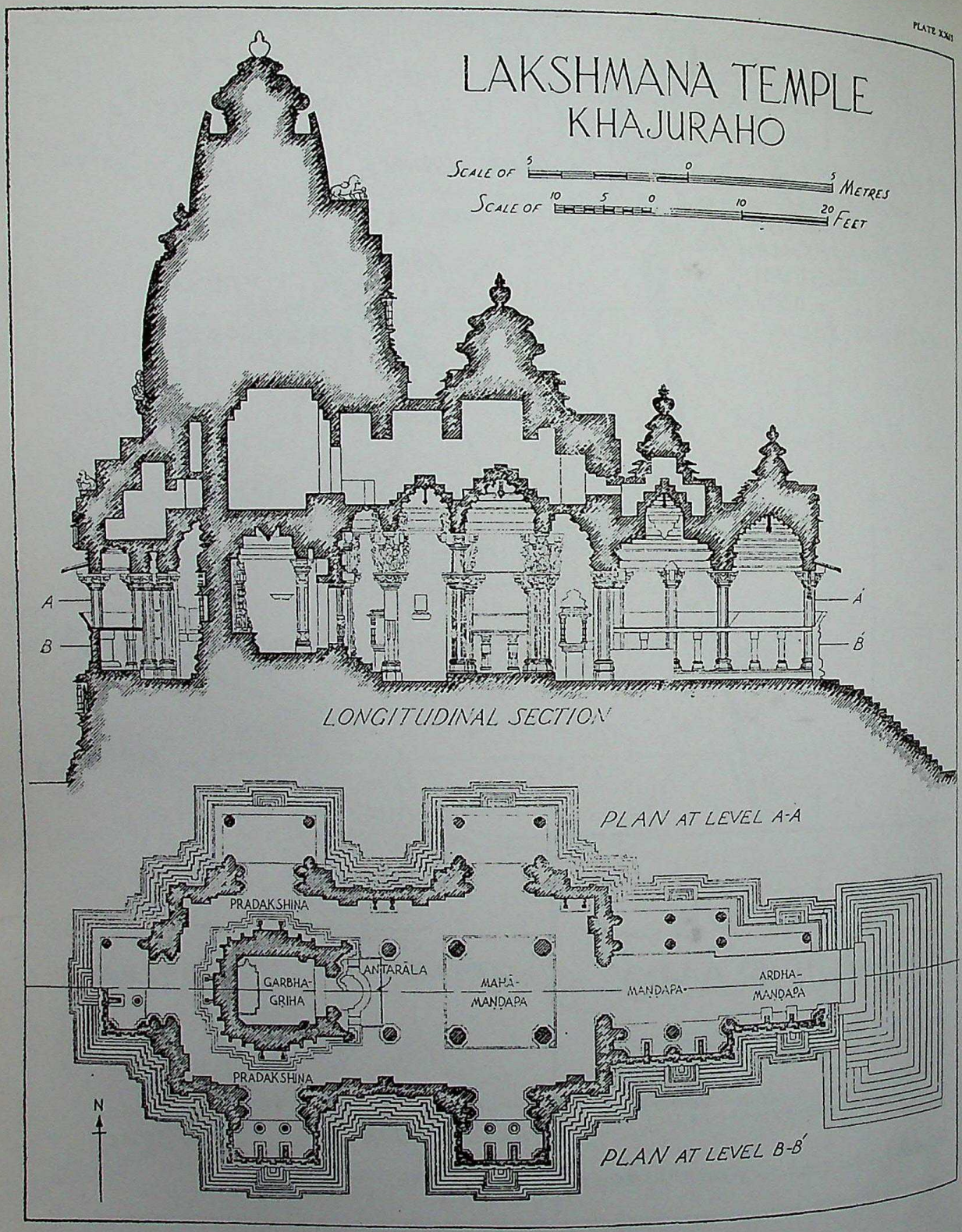


Fig. 5

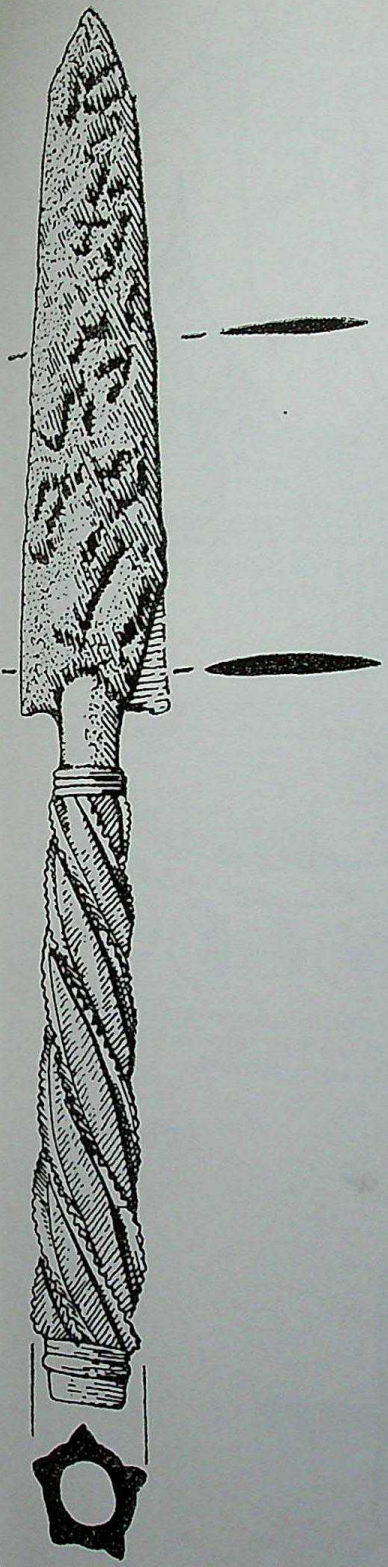


Fig. 6. Iron arrow-head from Tripuri.

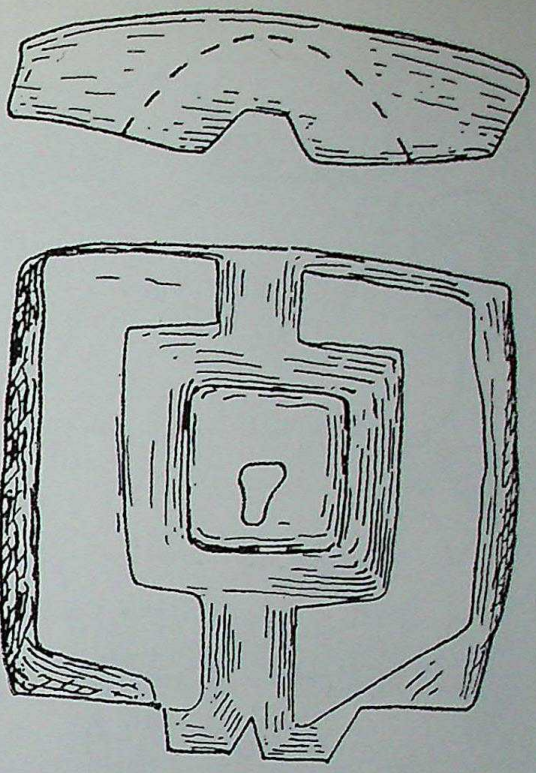


Fig. 7. Rotary quern, a proto-type, Alisar Huyuk.

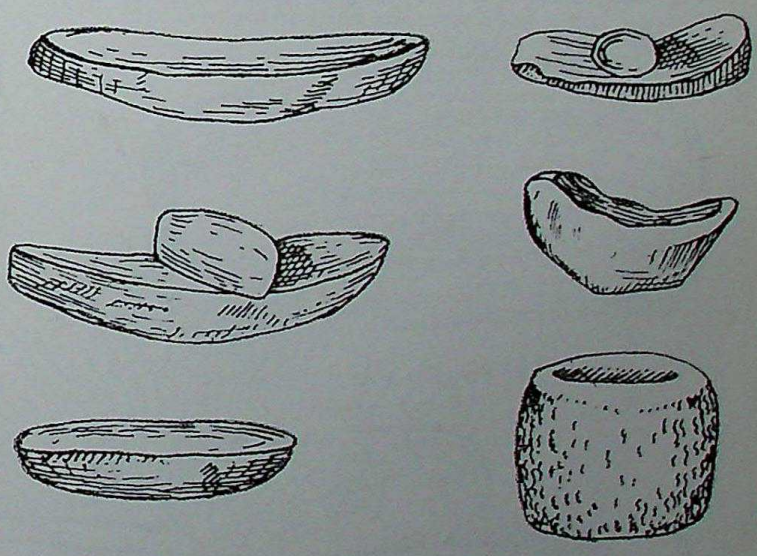


Fig. 8. Saddle querns, Mohenjodaro

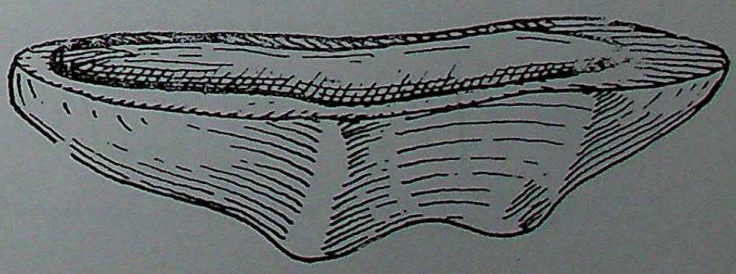


Fig. 9. Quern, Mohenjodaro

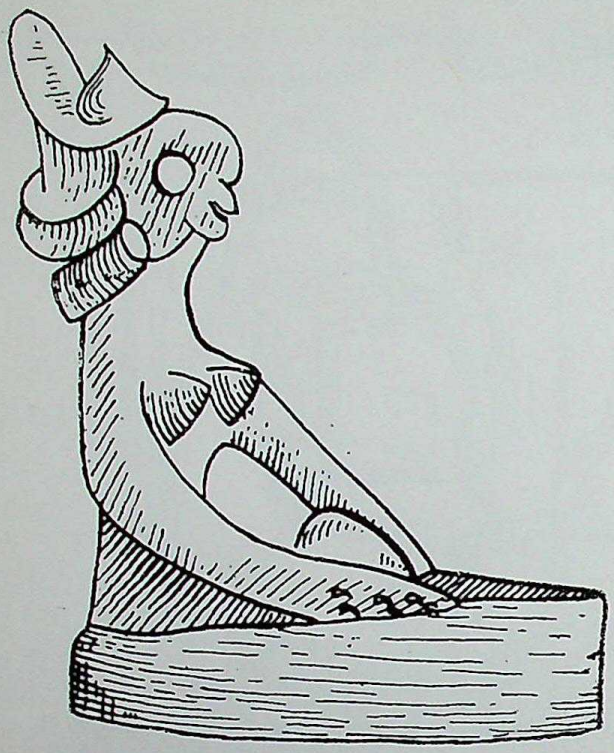


Fig. 10. Terracctta figurine grinding corn on a saddle quern, Mohenjodaro.

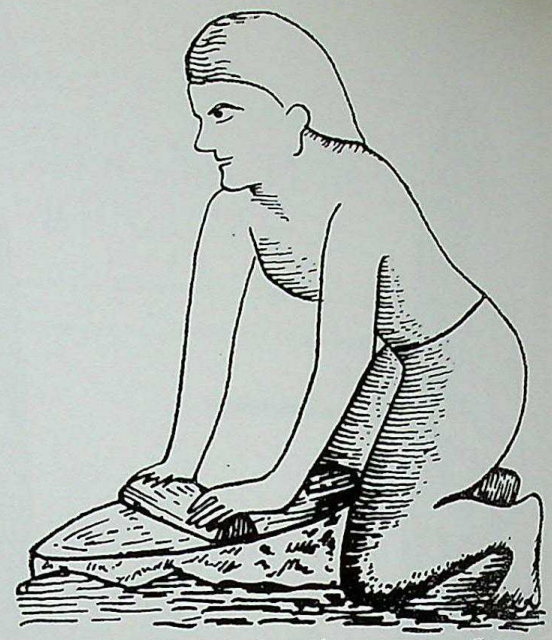


Fig. 11. Statuette using a quern, Egypt, Vth Dynasty.

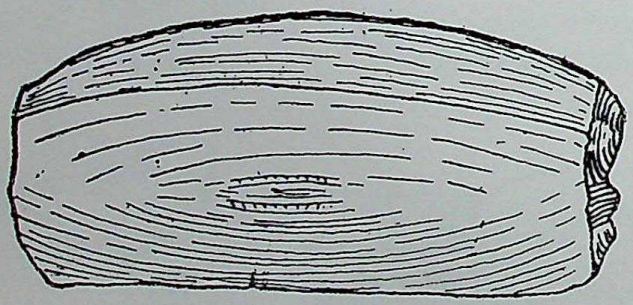


Fig. 12. Saddle quern, Anau

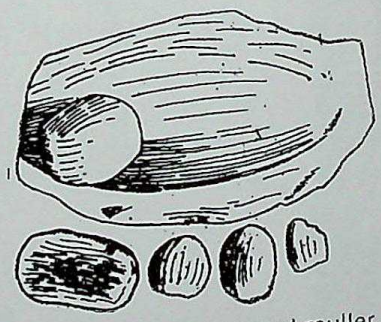


Fig. 13. Saddle quern and muller, Neolithic levels, Fayum Desert, Egypt.

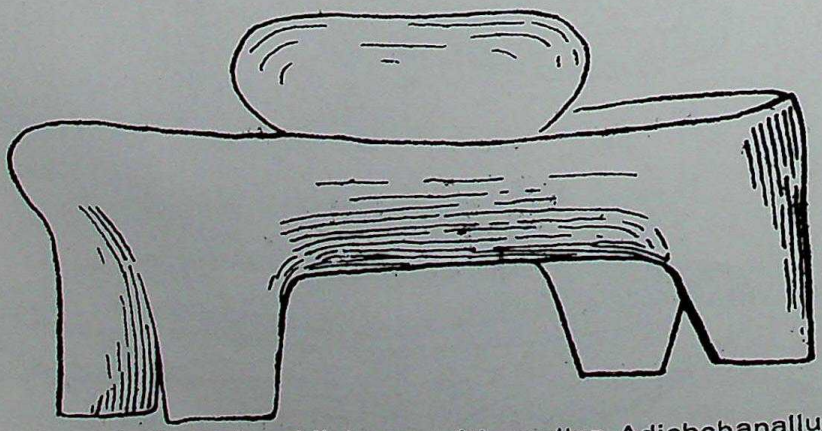


Fig. 14. Footed-saddlebuern with muller, Adichchanallur, Tamil Nadu.

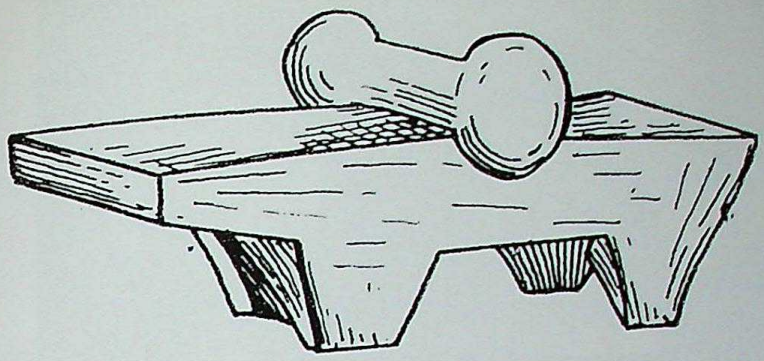


Fig. 15. Footed-saddle quern, Rairh, Rajasthan.

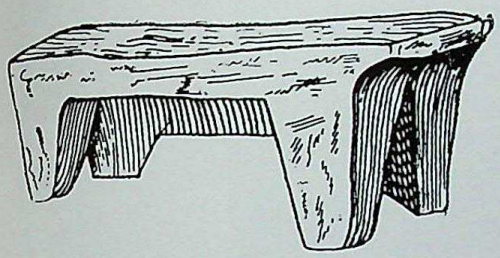


Fig. 16. Footed-saddle quern, Perumbair, Tamil Nadu.

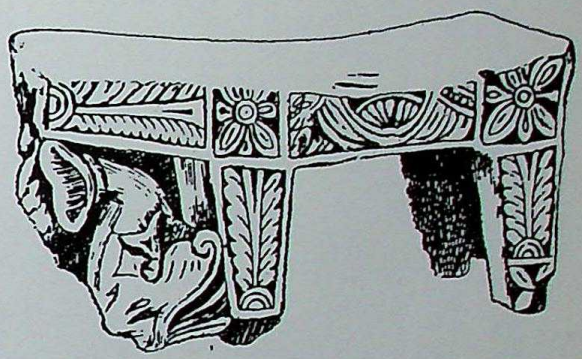


Fig. 17. Decorated, footed-saddle quern, Sirkap, Taxila, Pakistan.

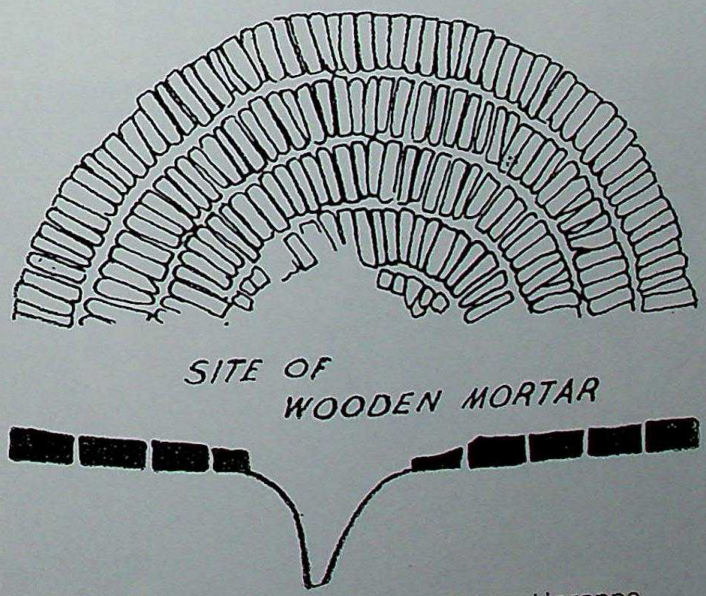
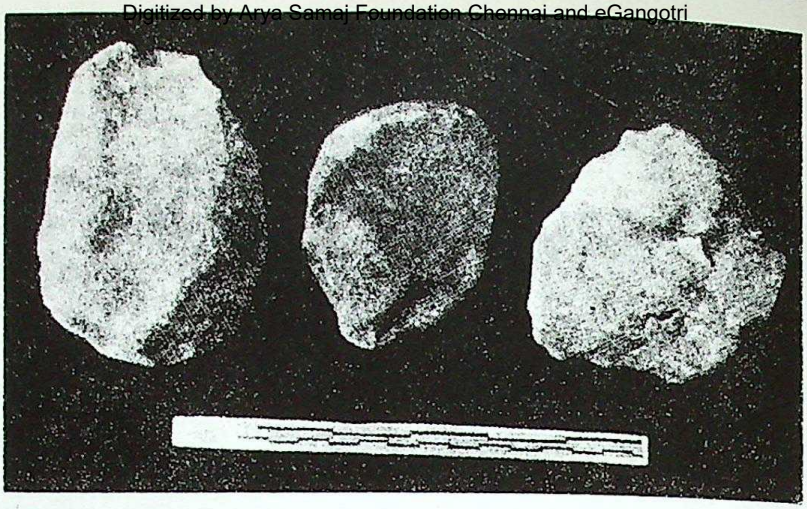
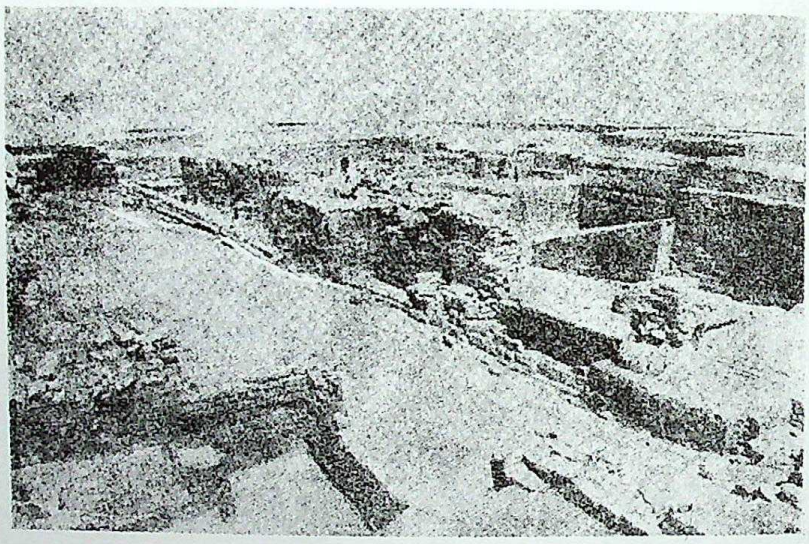


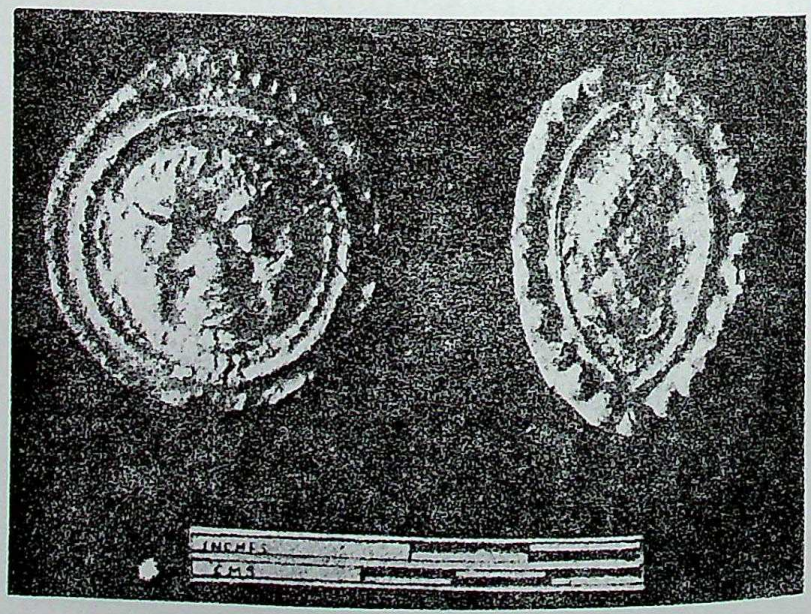
Fig. 18. Site of wooden mortar, Harappa.



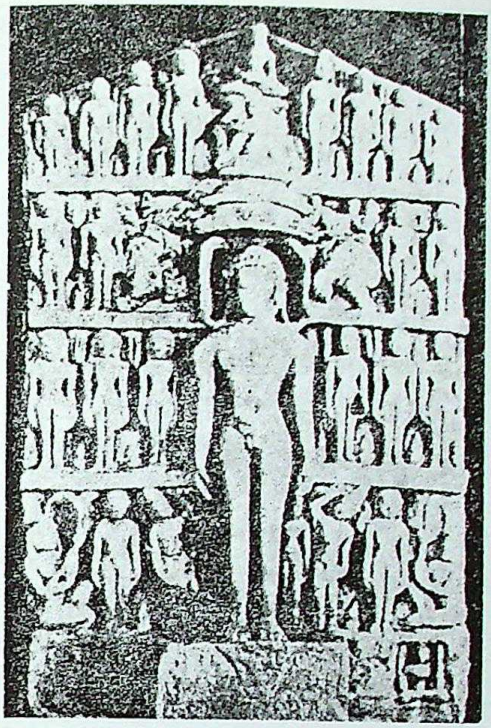
1. Palaeolithic tools from Majhan river



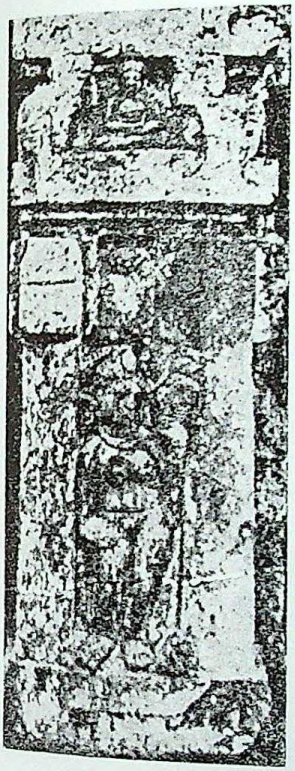
2. Lothal—A view



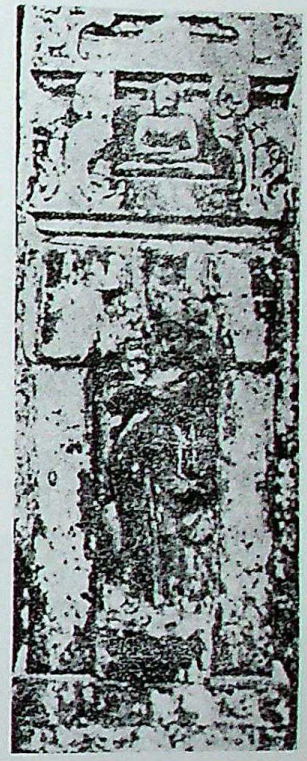
3. Terracotta bullae, Uparkot



5. Jina Rishaba, Deogarh

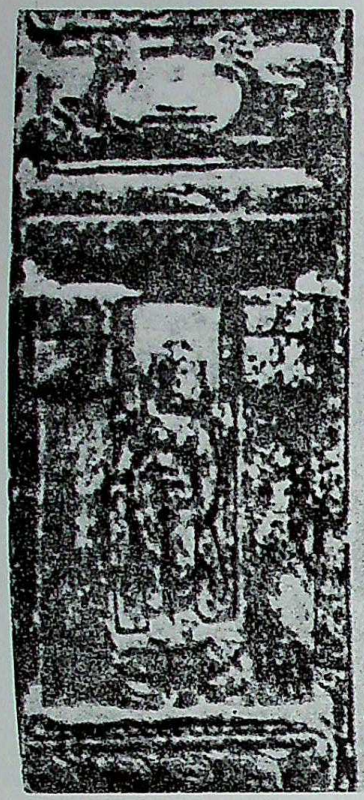


4. Jina Ananta and Yakshi Anantavirya Deogarh

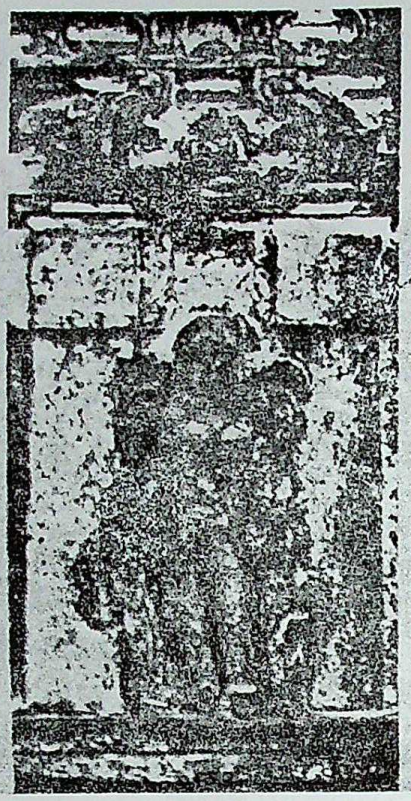


6. Jina Malli and Yakshi Bhimadevi, Deogarh

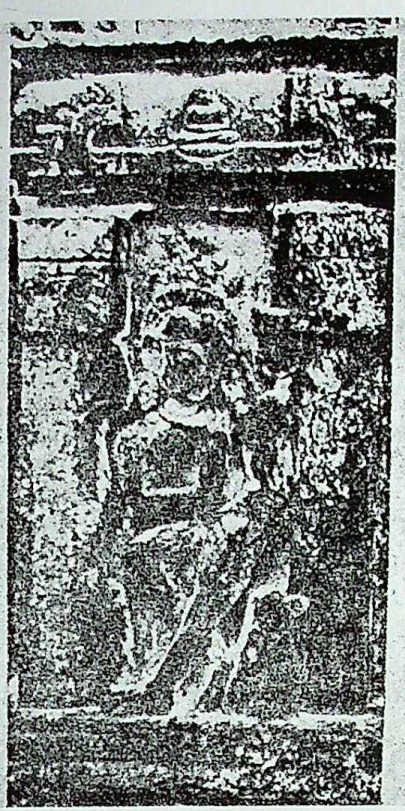
7. Jina Parsva and Yakshi padmavati, Deogarh



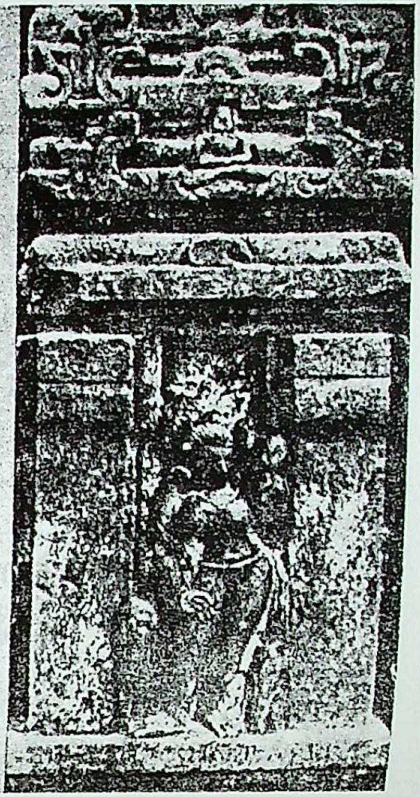
8. Jina Munisuvrata and Yakshi, Deogarh



9. Jina Rishaba and Yakshi Chakresvari, Deograh

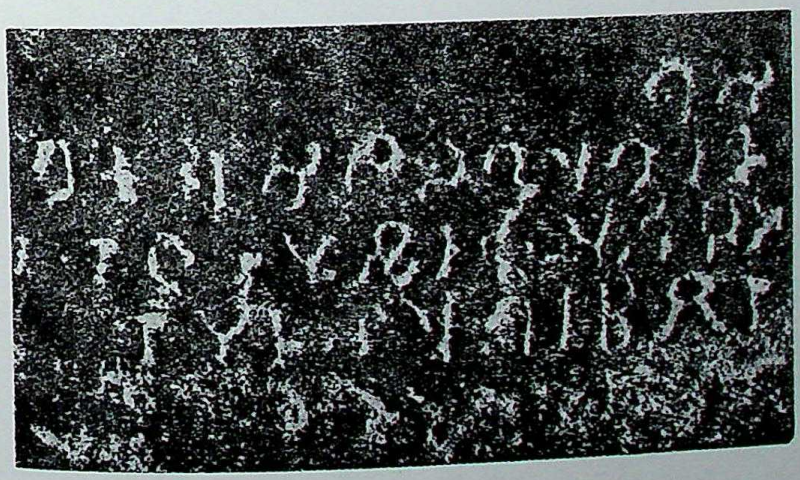


10. Jina Arishtanemi and Yakshi Ambayika, Deogarh



11. Jina Vardhamana and Yakshi Aparajita, Deogarh

12. Unique Sirasasana pose, Khajuraho



13. Early inscription from a cave near Pala or Pale village

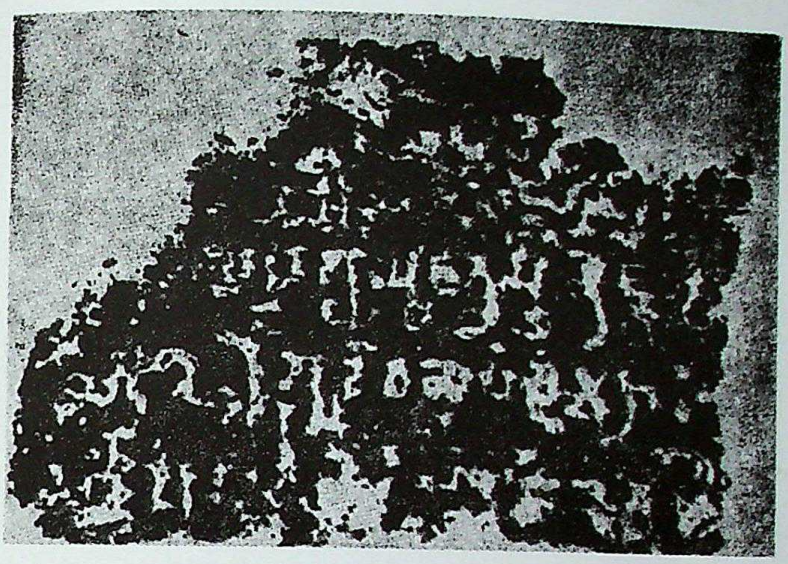
14

15

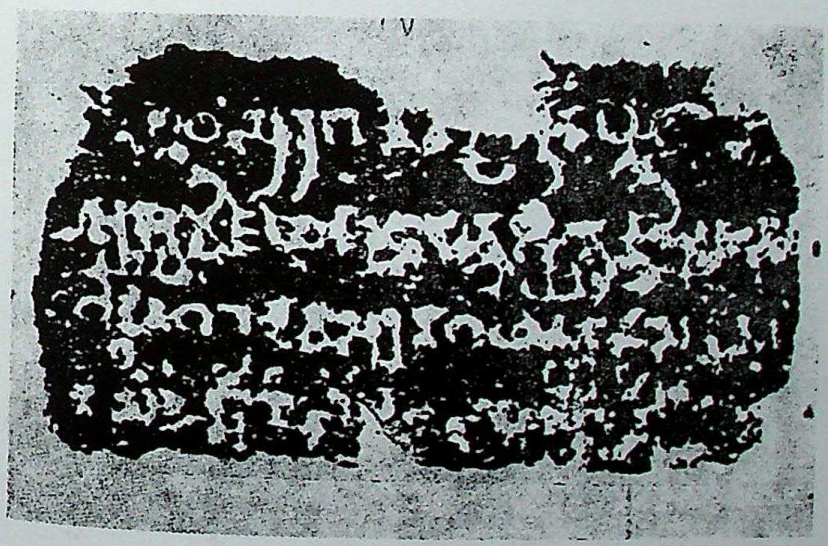
16

17

Brahmi inscriptions on limestone pillars, Guntupally, Krishna District

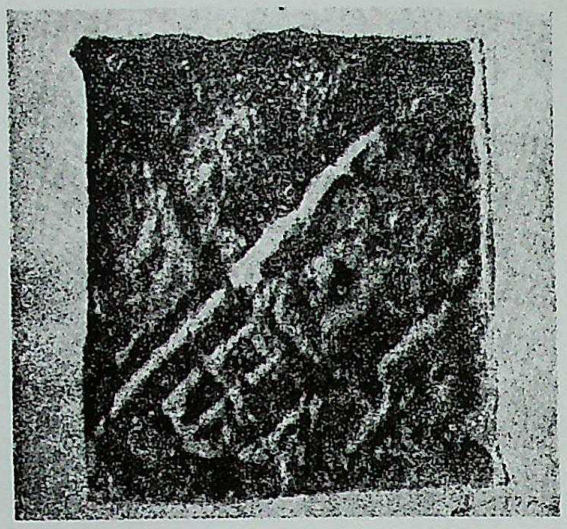


18

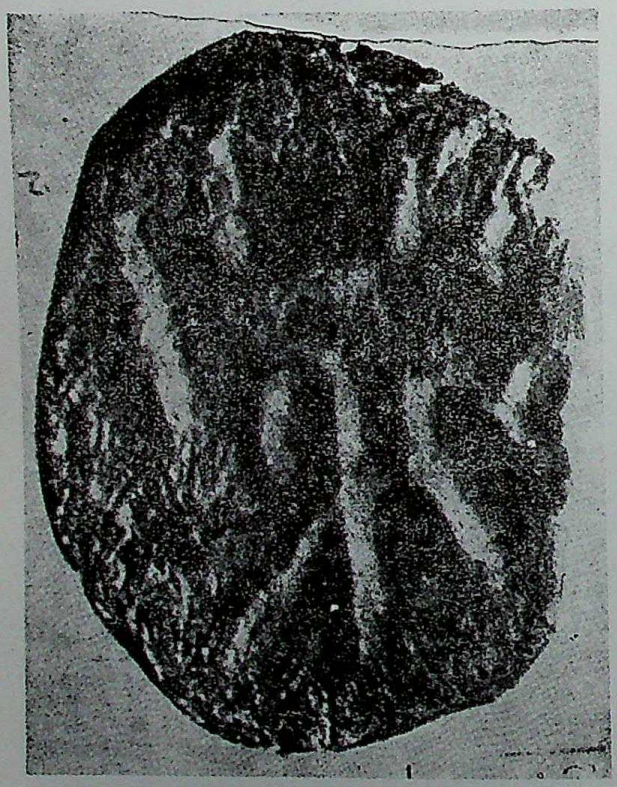


19

Inscriptions from Bawa Pyara, Junagadh, *C.* 250 A.D.



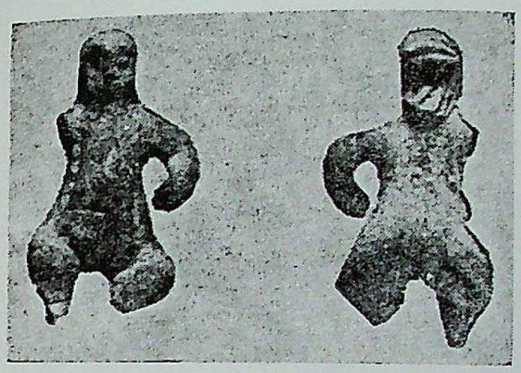
20



21

22

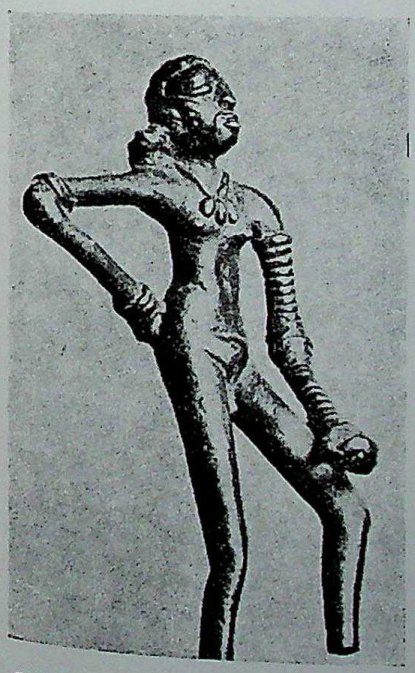
Seal and Coins from Nasik excavation



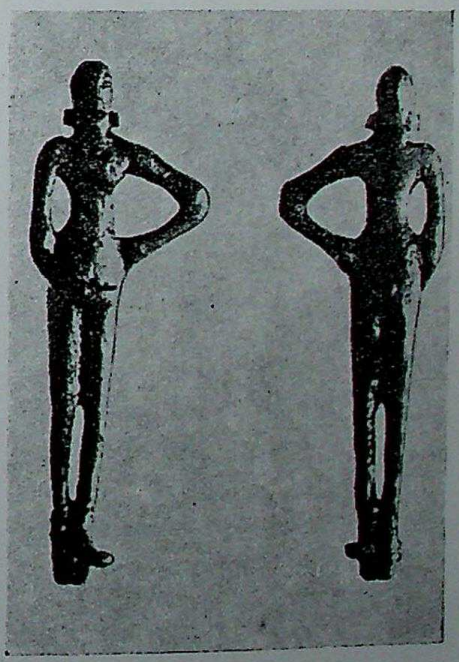
23

24

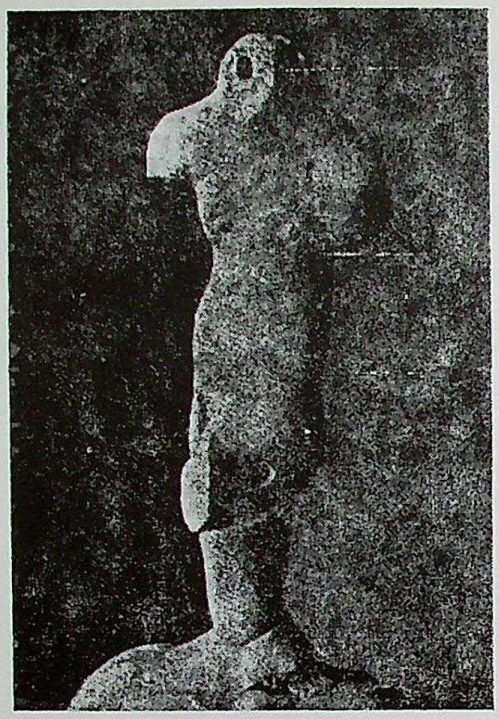
Harappan Terracottas



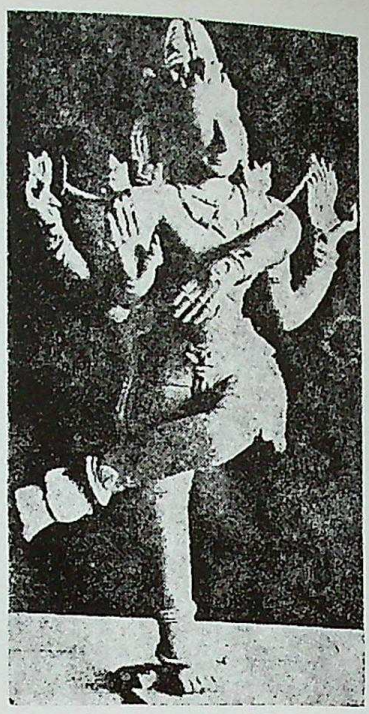
25. Dancing girl, Bronze, Mohenjodaro



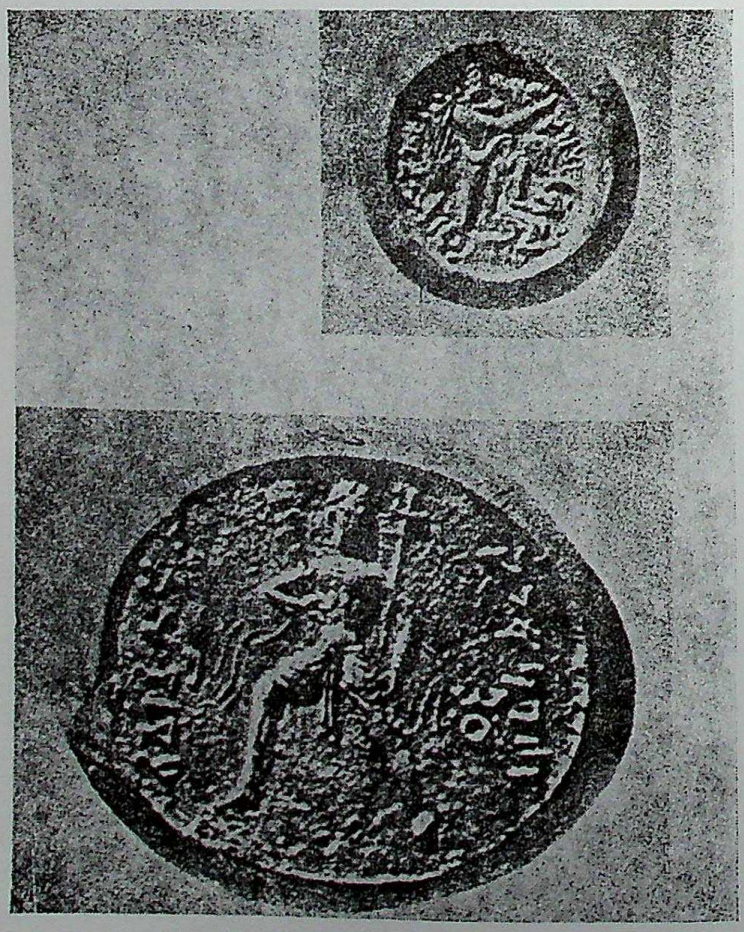
26. Female dancer, bronze, Mohanjodaro



27. Statuette, Harappa

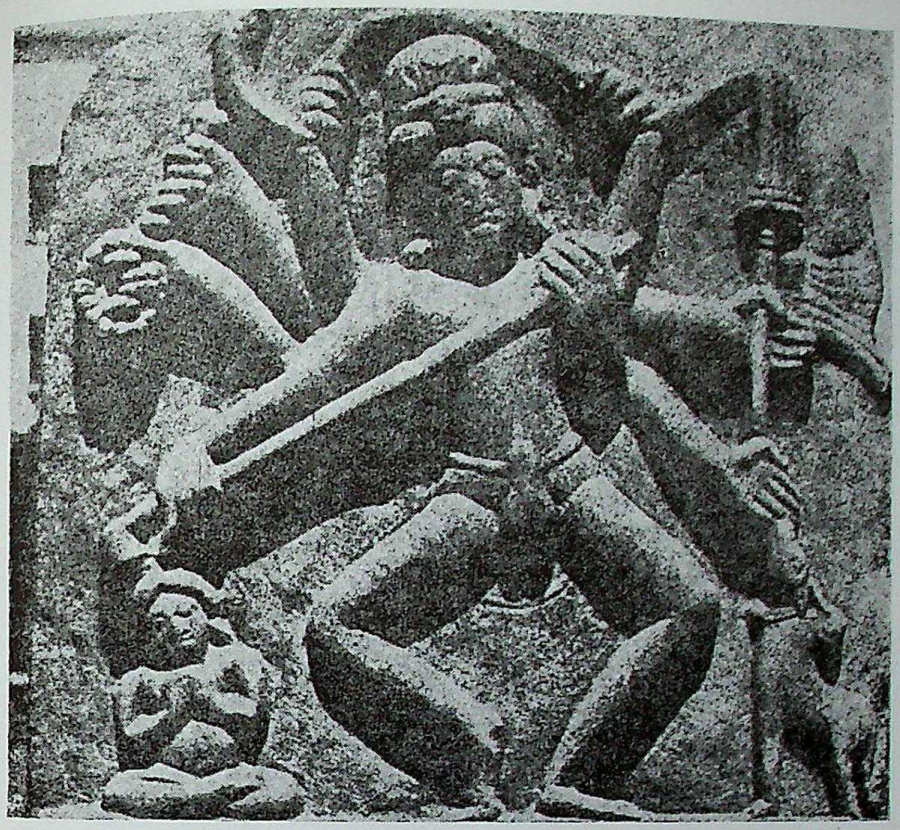


28. Bronze Natraja-Eastern Chalukya-Kakatiya, 11th-12th Century A.D. Draksharamam

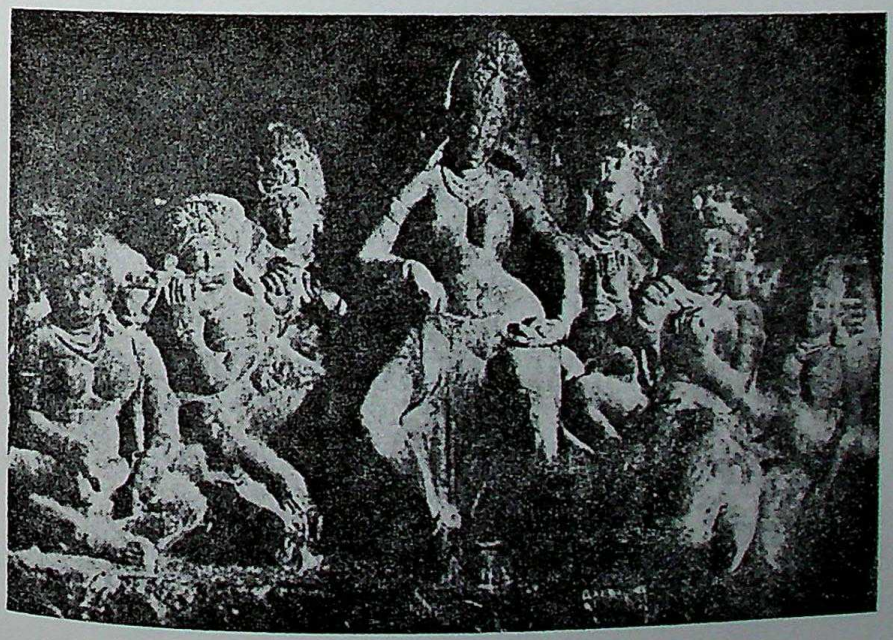


29. Coin of Maues, Siva with *Khatvanga* & in *Pratyalidha* pose Ist Cent. B.C., Taxila

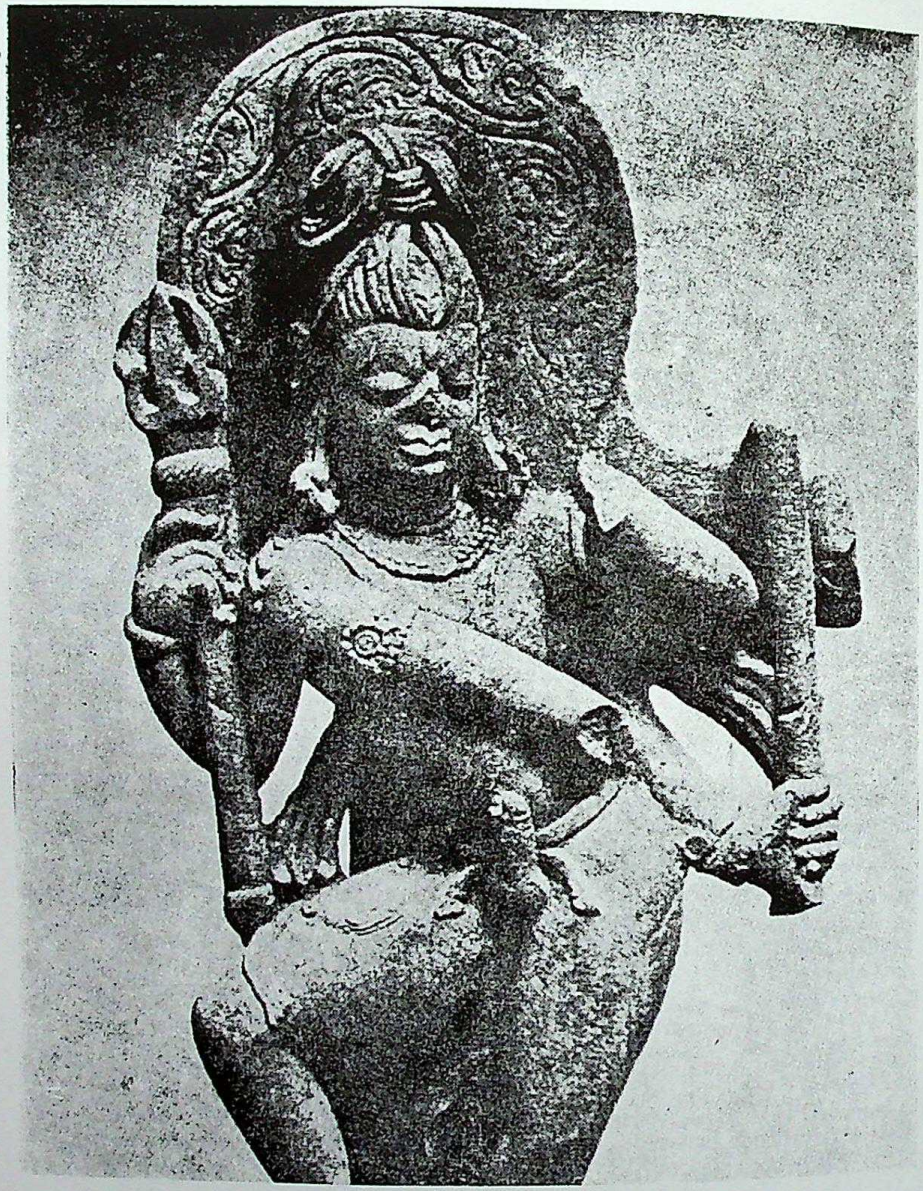
30. Indo-Greek Copper seal depicting Siva with *Khatvanga* and in *alidha* pose, Ist Cent. B.C., Taxila



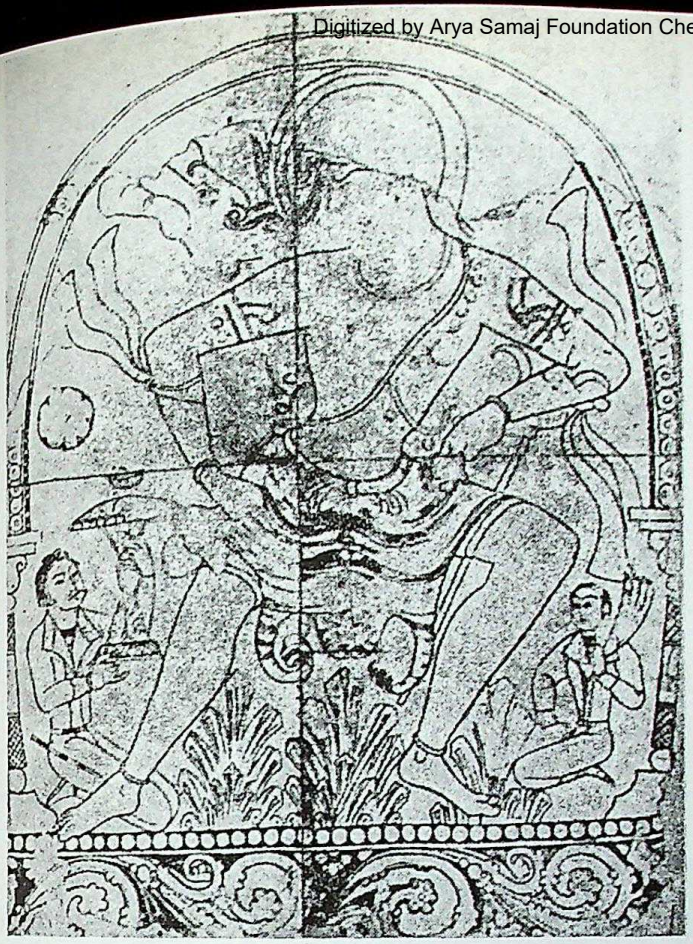
31. Dancing Siva holding vina, Asanapat, 6th Century AD.



32. Tara dancing, Aurangabad, *C*. 500 AD.

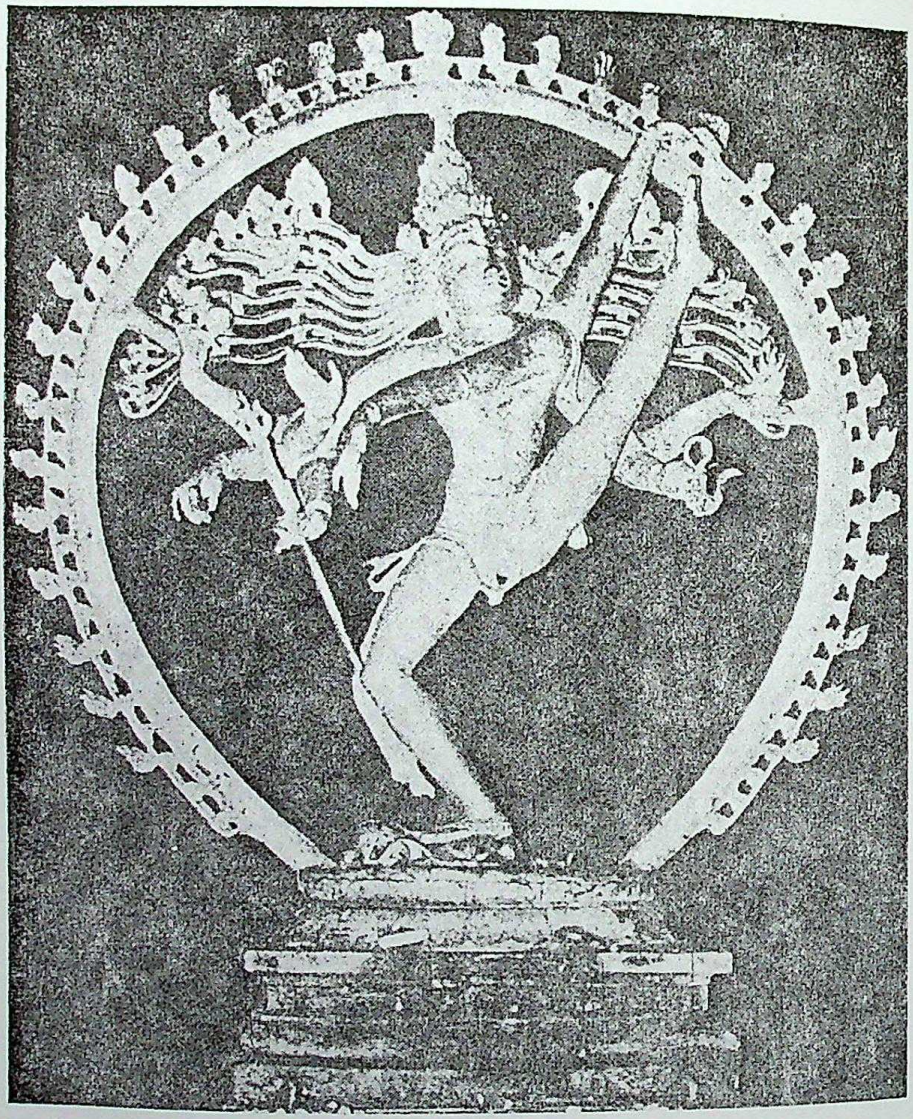


33. Nataraja, Gurjara-Pratihara, 9th Century AD.



34. Natraja, Painting, Tadjikistan

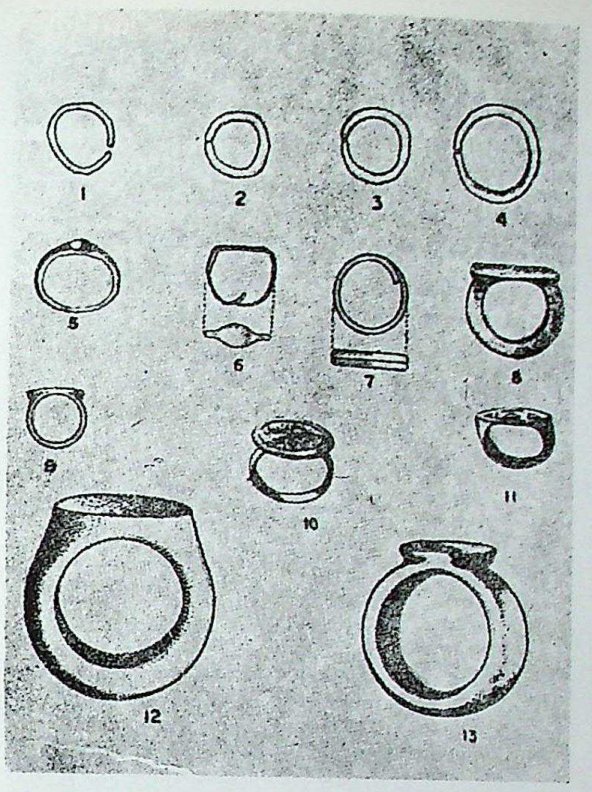
35. Natraja, Gurjara-Pratihara,
9th Century A.D., Gopesvar



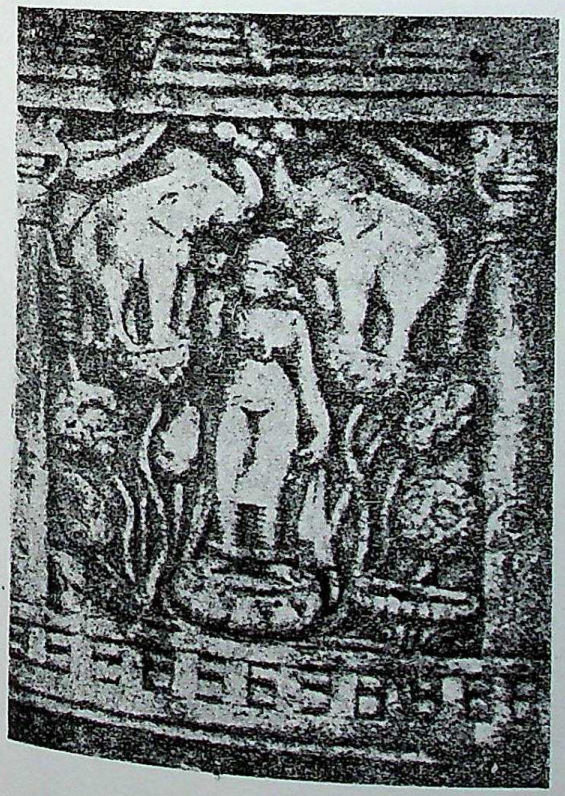
36. Nataraja, *Urdhvatandava* pose, Early Chola Bronze, Tiruvalangadu.

37. Early Chola Bronze Natraja, 10th Century A.D.

38. Karaikkal Anmaiyar, Bronze, Polonnaruva Museum

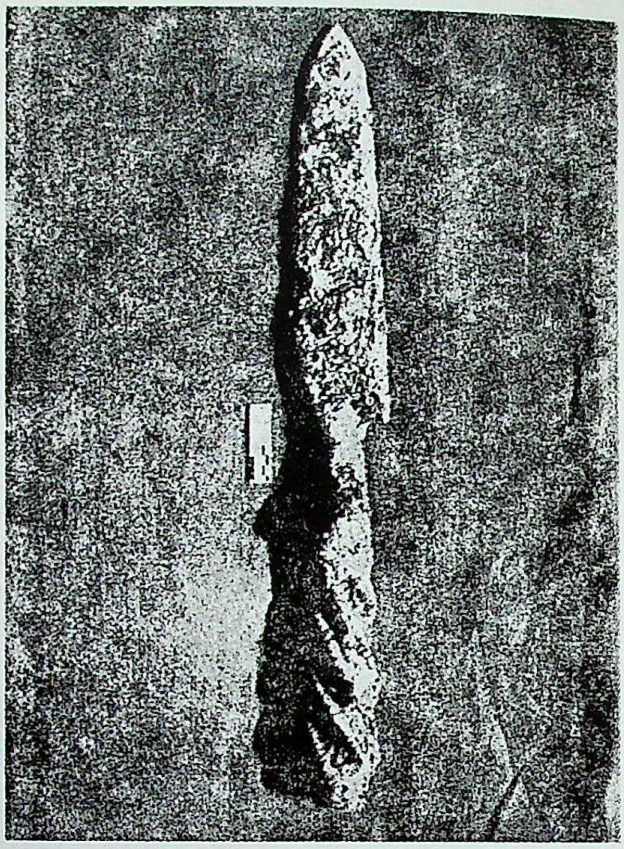


39. Finger rings-3rd millennium B.C. to 5th century A.D.

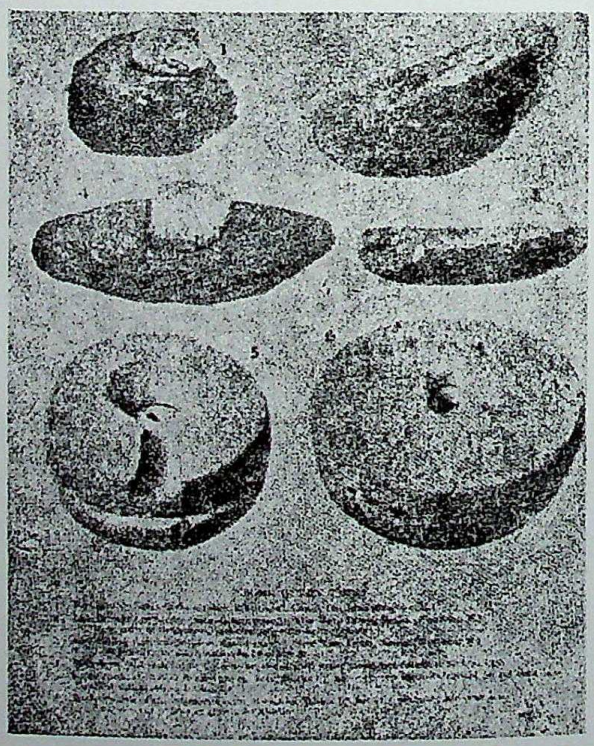


40. Standing Gajalakshmi

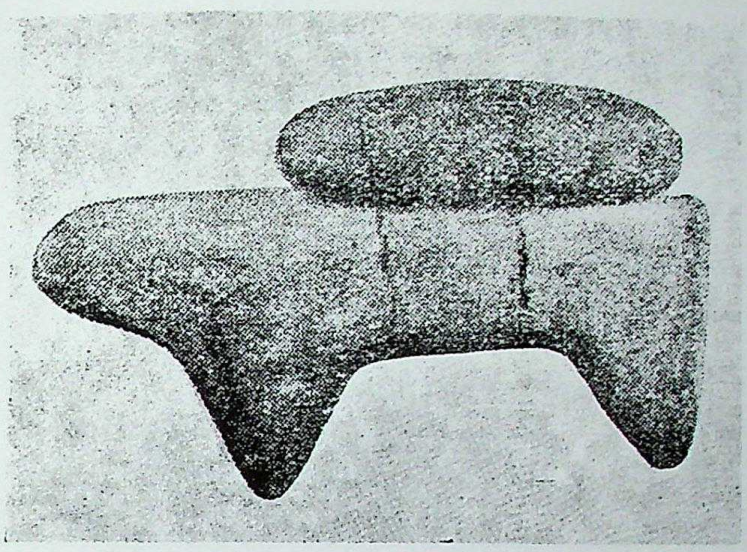
41. Seated Gajalakshmi



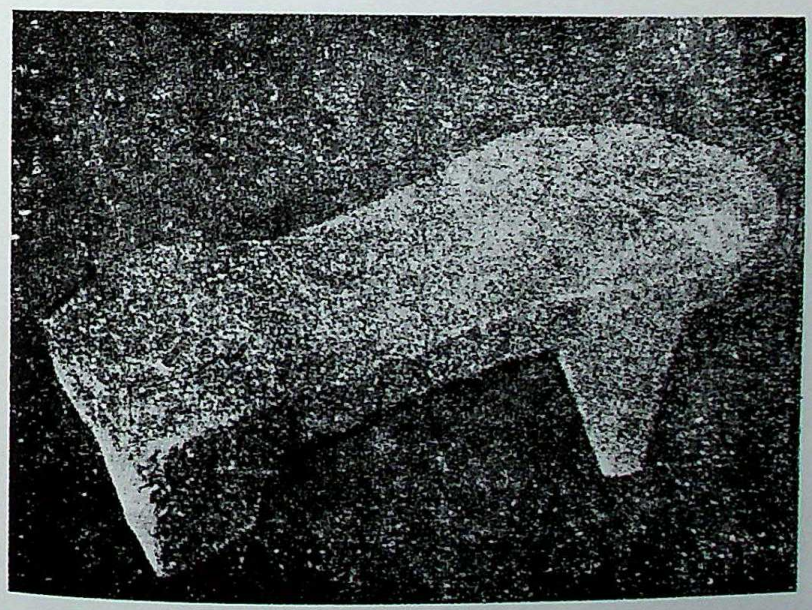
42. Iron arrow-head, Tirpuri



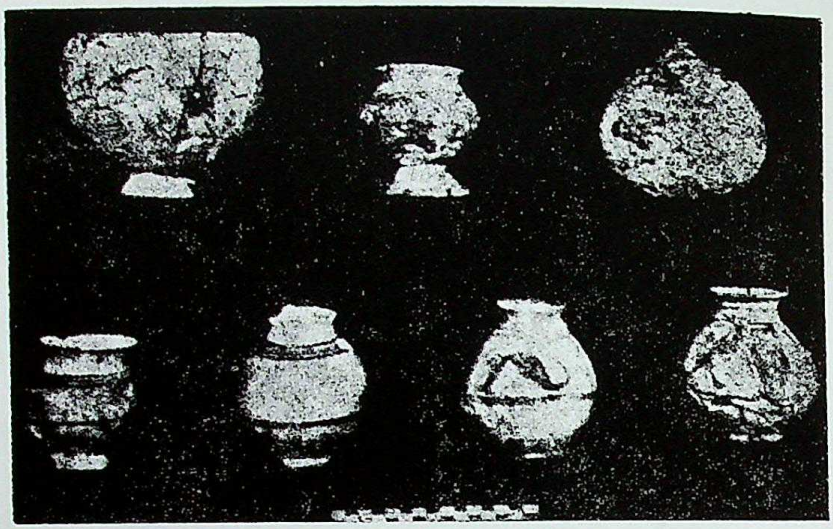
43. Rotary querns



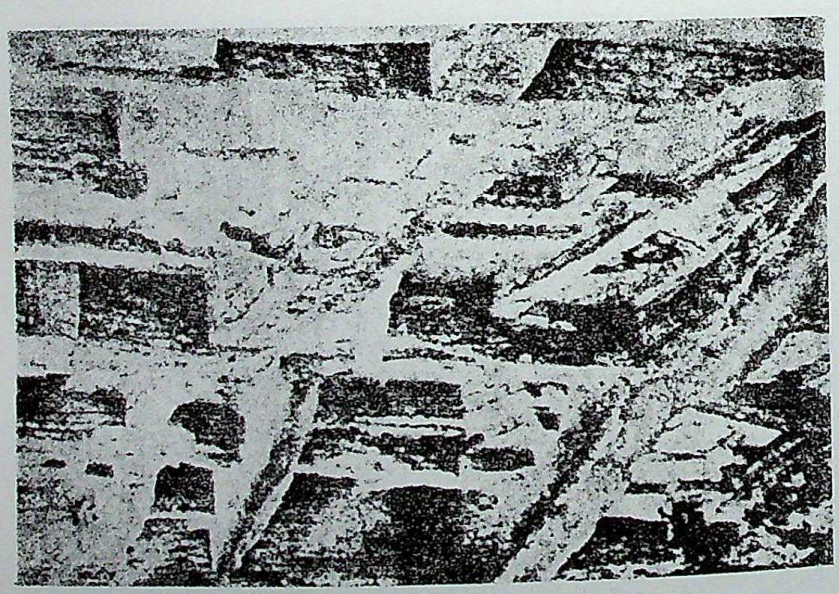
44. Saddle quern with round muller



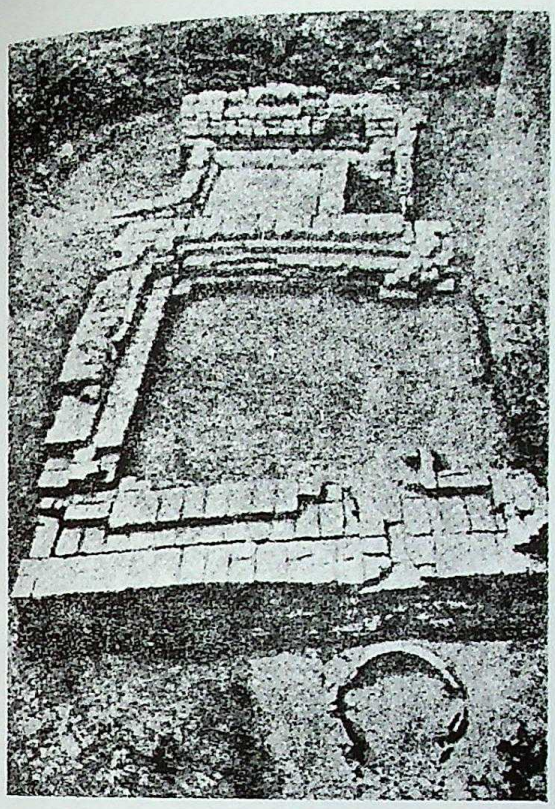
45. Footed saddle quern, Harappa



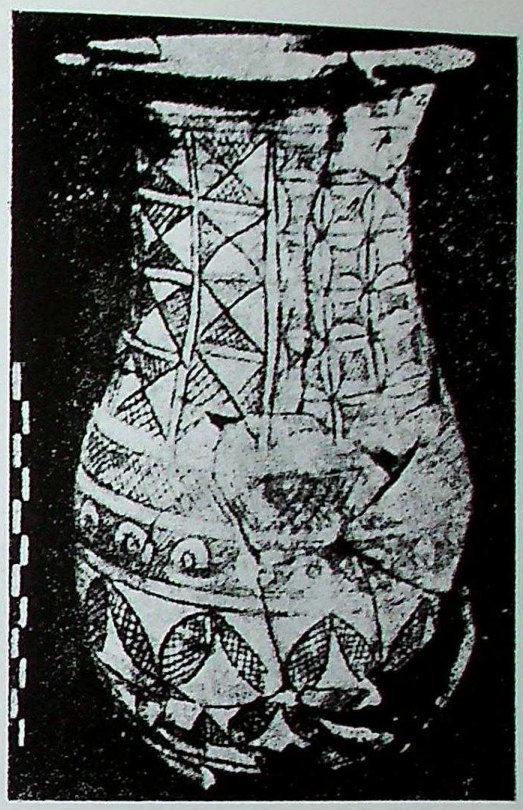
46. Pre-Harappan pottery from Kalibangan



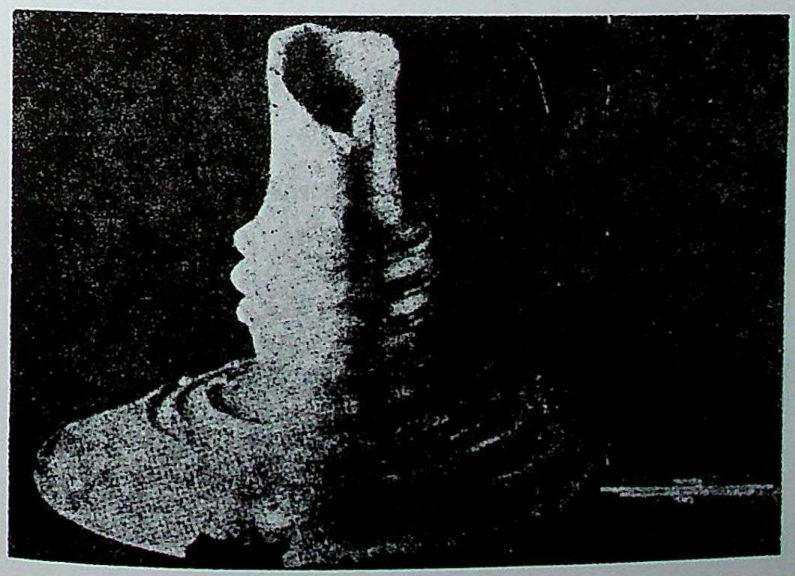
47. Structures, Pre-Harappan period, Kalibangan



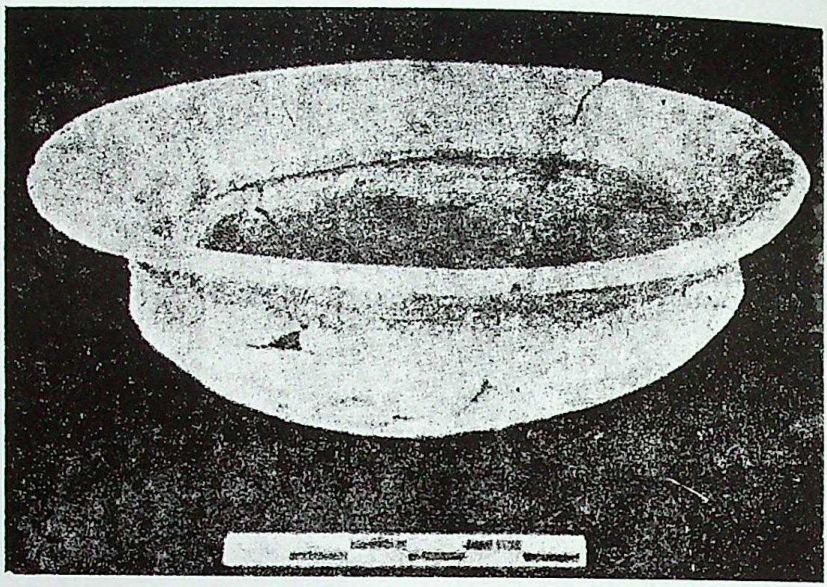
48. Brick-paved bath with soakage Jar, Lothal



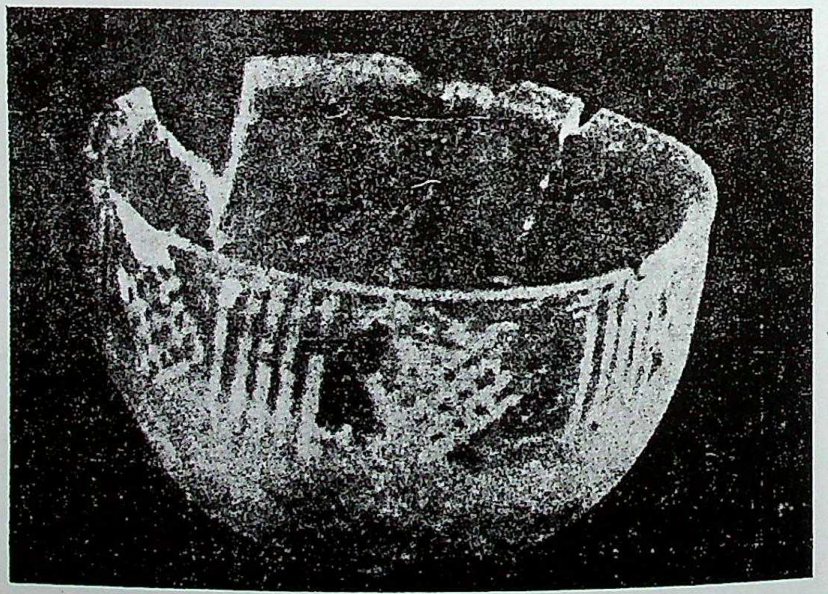
49. Painted jar, Lothal



50. Typical pottery stand, tan ware, Ahar

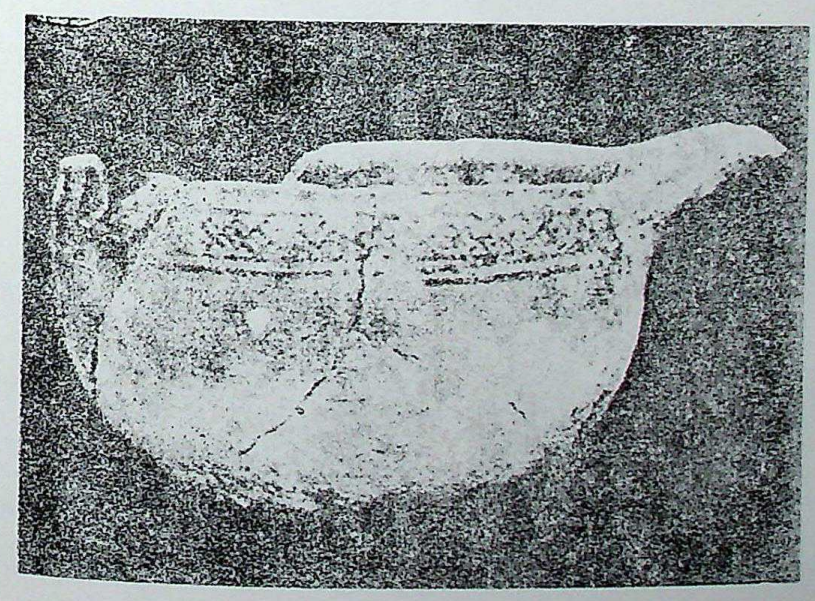


51 Tan ware, bowl, Ahar

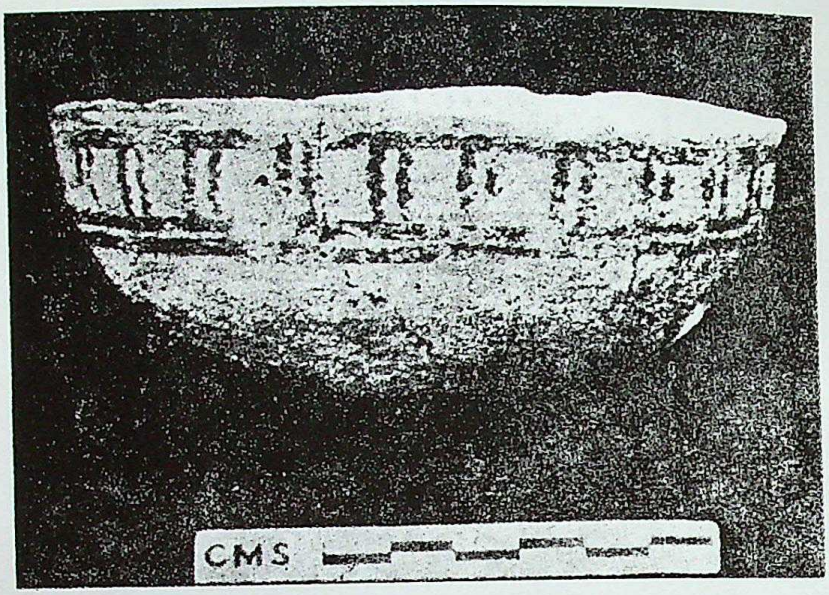


52. White Painted Black-and-red ware bowl, Ahar,

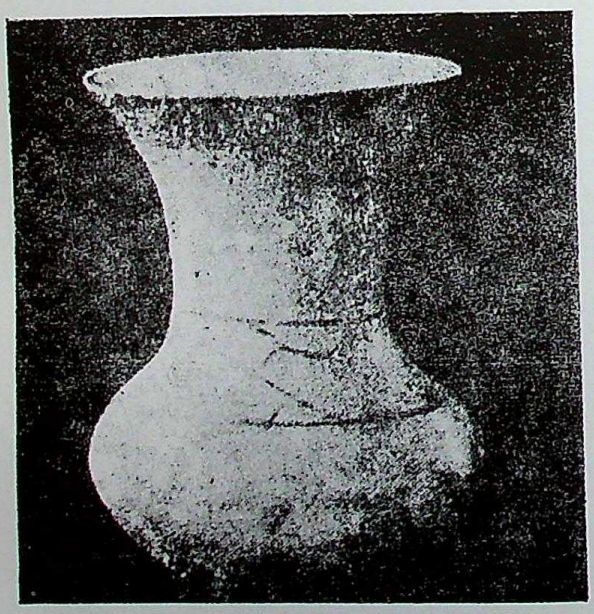
53. Typical goblet or Bowl-on-stand, Navdatoli



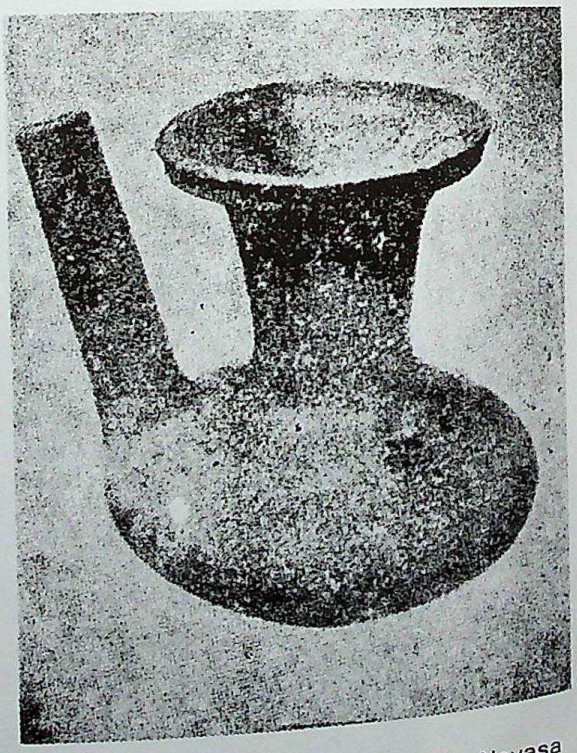
54. Channel-spouted bowl, Central Indian Chalcolithic culture, Navdatoli



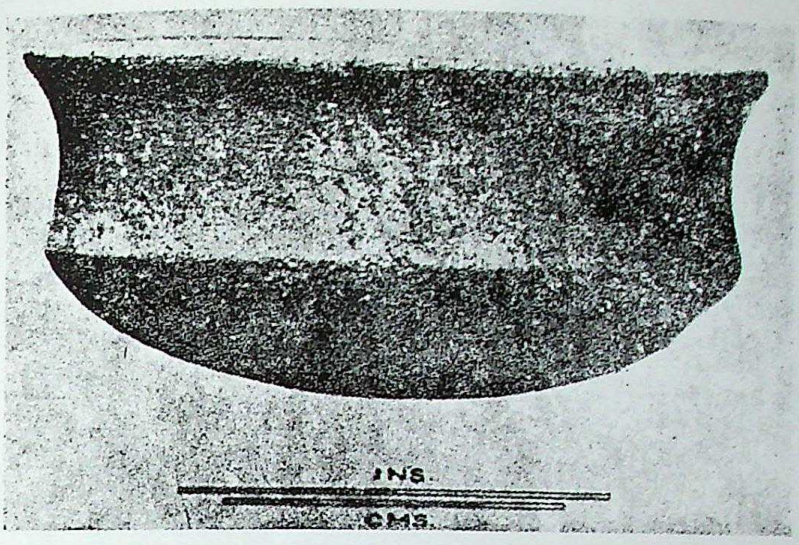
55. Painted bowl, Navdatoli



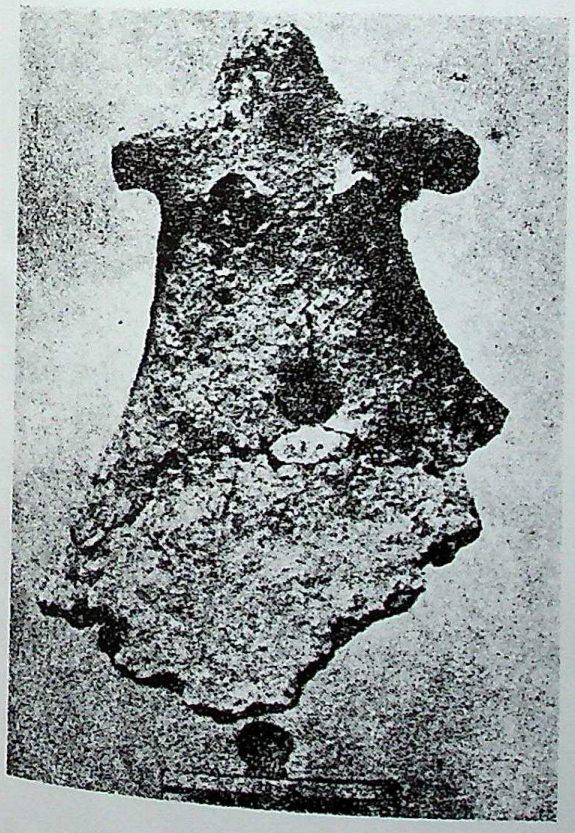
56. Lota, Malwa Ware, Navdatoli



57. Spouted pot, Jorwe fabric, Nevasa

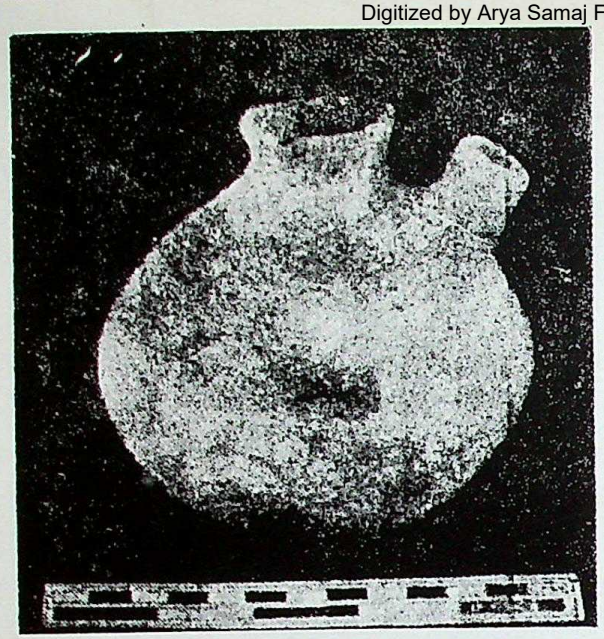


58. Carinated bowl, Central Indian chalcolithic Culture, Navasa

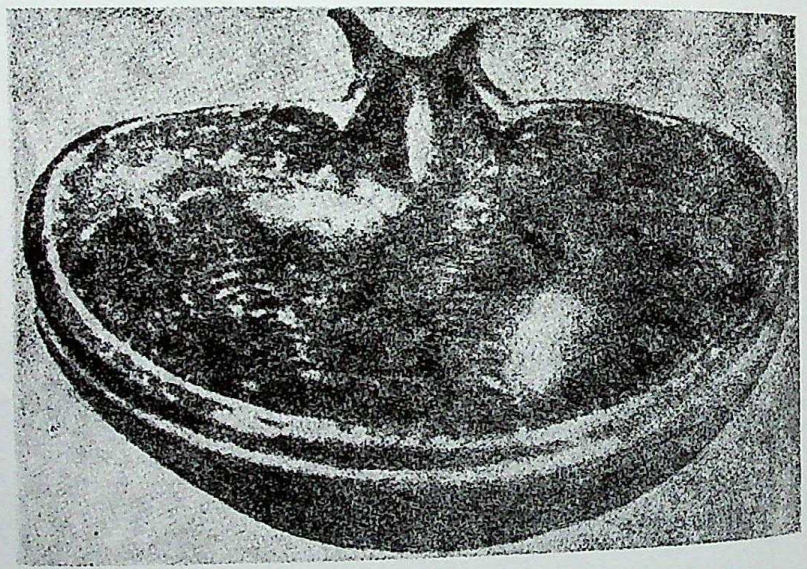


59. Mother Goddess, Nevasa

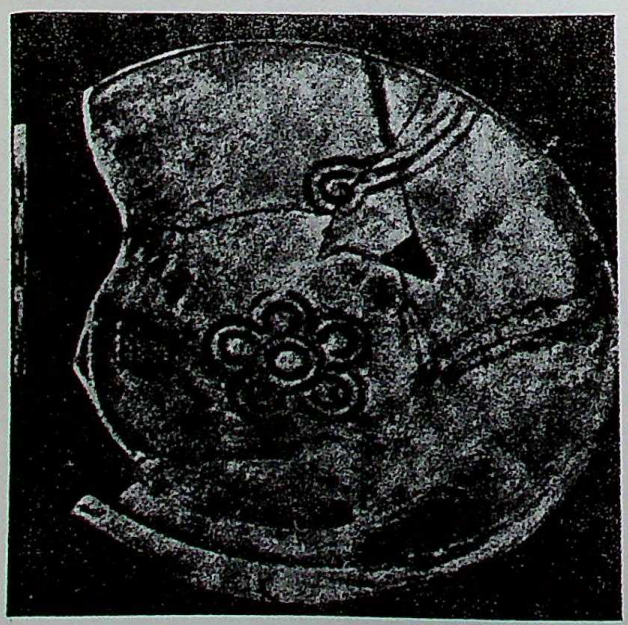
60. Tea Kettle, Neolithic levels, Tekkalakotta



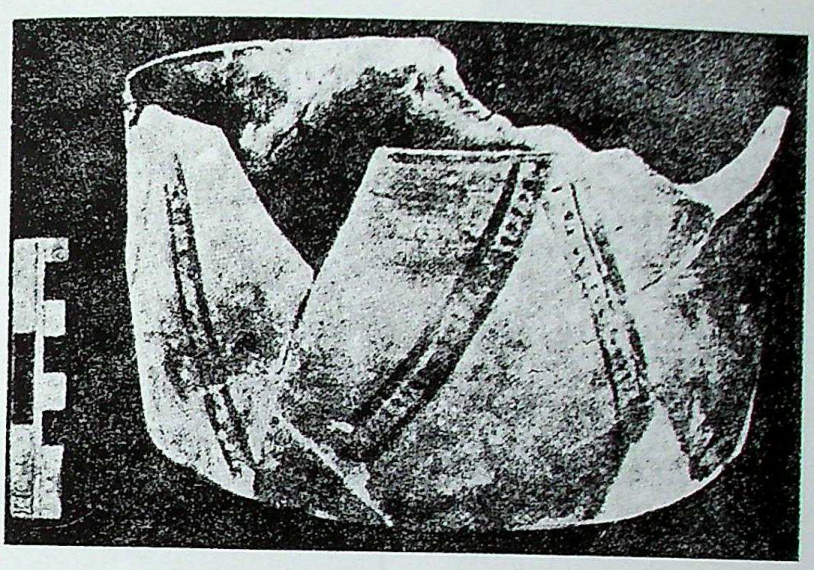
61. Spouted pot, Neolithic levels, Tekkalakotta



62. Channel-spouted bowl, Rajar Dhipi, West Bengal

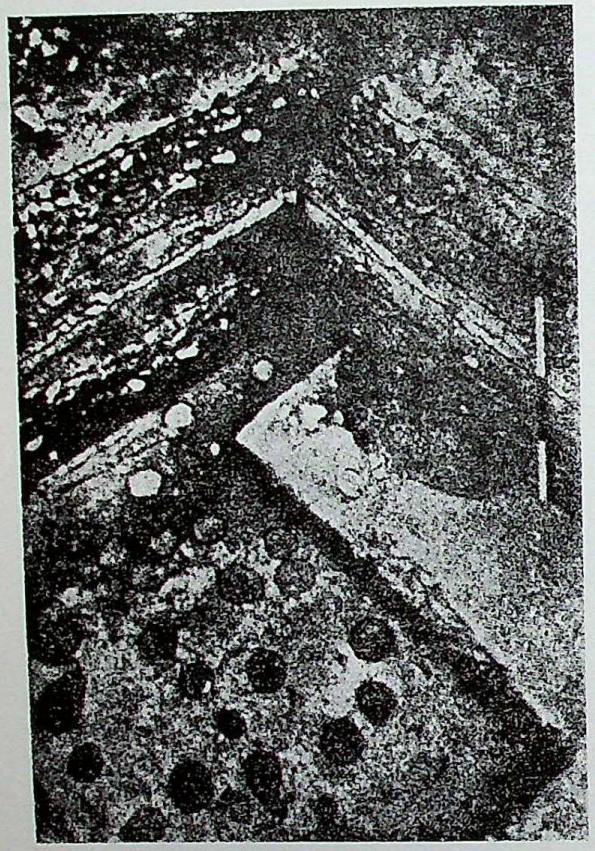


63. Dish, Painted Grey Ware, Hastinapura

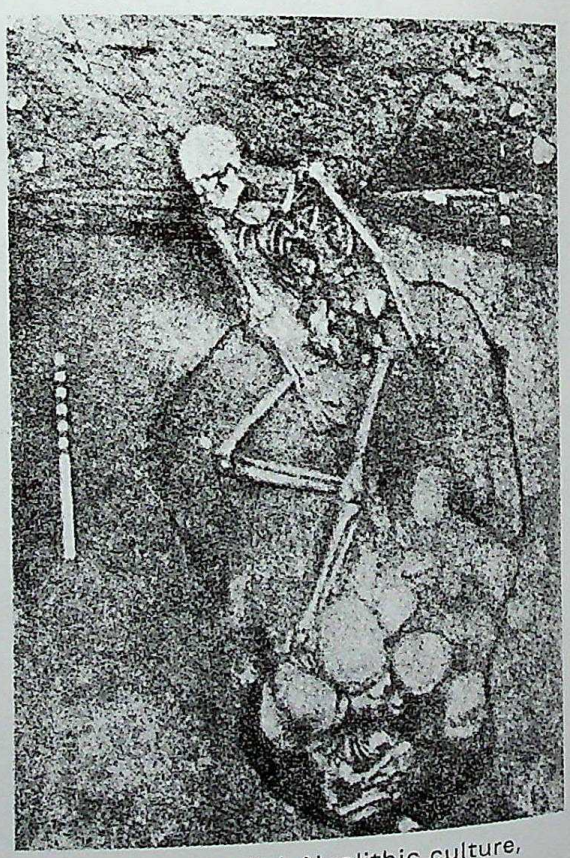


64. Straight sided bowl, Painted Grey Ware, Hastinapura

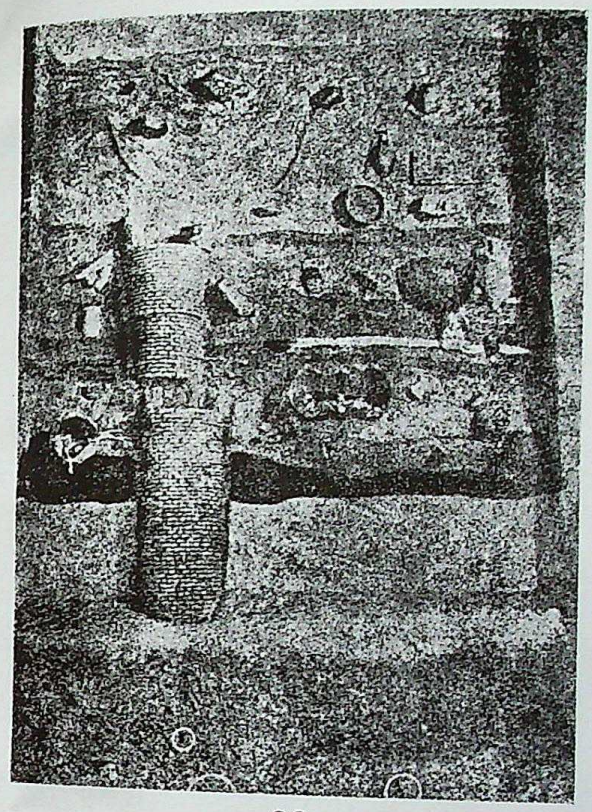
65. Megalithic pottery, Brahmagiri



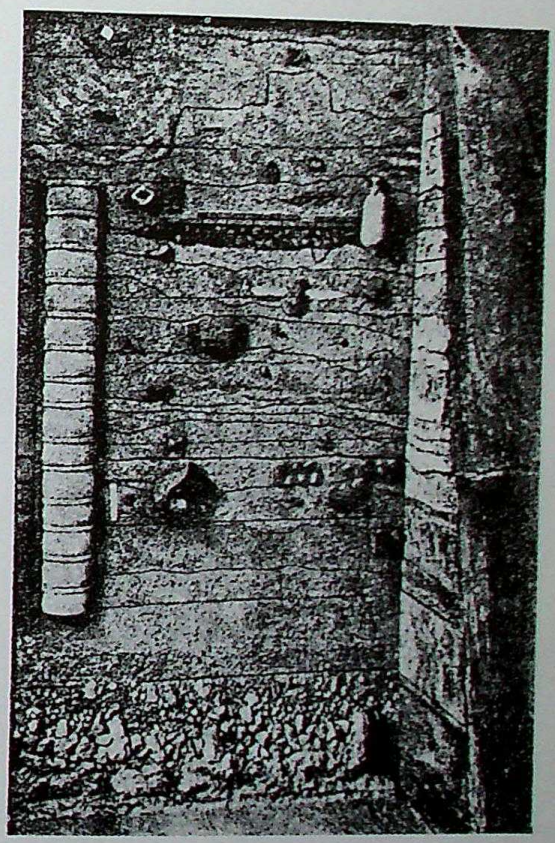
66. Dwelling pit with post-holes, Neolithic culture, Burzahom



67. Human burial, Neolithic culture, Burzahom

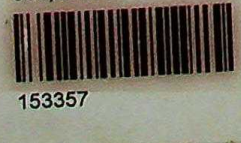


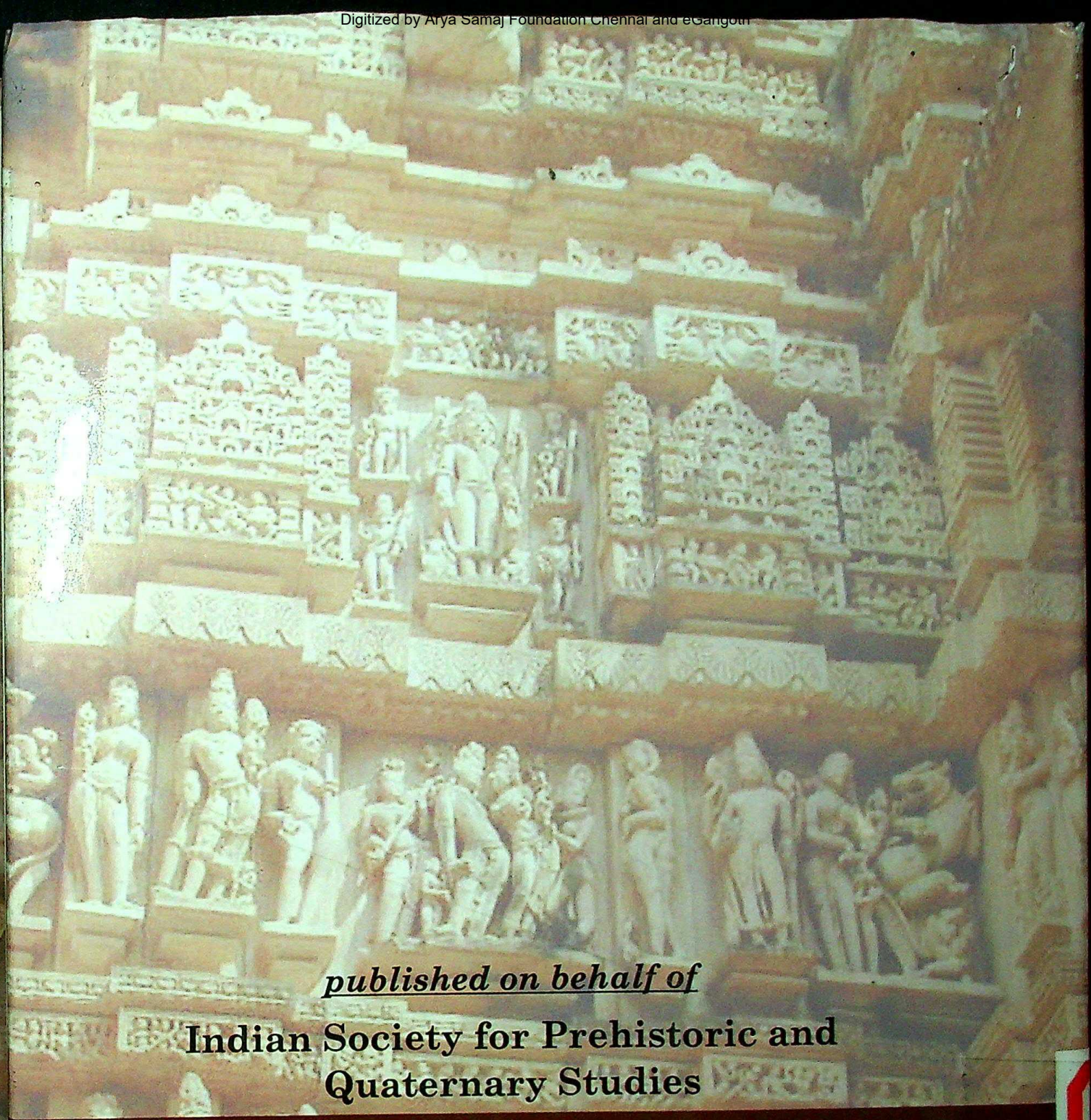
68



69

Scale models of an excavated Trench, Nevasa.





published on behalf of

Indian Society for Prehistoric and Quaternary Studies

ISBN 9789350500347

B. R. Publishing Corporation
425, Nimri Colony, Ashok Vihar
Phase-IV, Delhi-110052
Tel. 011-23259196, 23259648